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For further information on this release, contact:

James Stathas
CA 5-9600, Ext. 745

FOR RELEASE: IMMEDIATE

January 5, 1962

CHICAGO, ILL.--Two one week sessions in X-Ray Diffraction Analysis will be conducted by Illinois Institute of Technology June 4-15, it was announced today.

The summer x-ray analysis program at Illinois Tech provides training in the utilization of x-ray diffraction methods for the identification and characterization of crystallographic properties of commercial materials.

The Powder Method in X-Ray Analysis session, June 4-8, is designed to familiarize beginners with the use of x-ray diffraction methods in the analysis of polycrystalline materials. The Advanced Methods in X-Ray Analysis session, June 11-15, will provide advanced students with the background necessary for analysis of complex problems.

Each course is comprised of five days of lectures and laboratory, with special emphasis given to practical applications. No prerequisites are required for the non-credit courses.

Information concerning tuition fees and on-campus housing may be obtained from Prof. Leonid Azaroff, Illinois Institute of Technology, Chicago 16, Illinois.

According to Azaroff, early registration is recommended because the number of applications has exceeded the enrollments in each course by a considerable number in the last few years.

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Enrollment is limited to 16 students in each course.

Laboratory work will be performed in IIT's x-ray diffraction laboratory, completed in 1960, which is used to determine the atomic structure of materials and can serve as a means to forecast the strength and durability of various metals. Equipment of this type has also been utilized in uncovering the properties of materials and new methods to facilitate manufacture of intricate solid-state devices such as transistors. The facility houses four diffractometers equipped with detectors, as well as a number of powder cameras, flat-plate cameras, rotation and oscillation cameras, Buerger precession cameras, single-crystal diffractometer attachments, and other specialized single crystal equipment.

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FOR RELEASE: IMMEDIATE

January 5, 1962

LAUDS WELDING SOUNDNESS

CHICAGO, ILL.--Industry's failure to recognize the advantages of welding over other joining methods is blocking the progress of the welding field, according to a New York engineer.

He is Jay Bland, of the General Electric Company, who will present his views during the 8th Annual Midwest Welding Conference, January 31 to February 1, in Chicago. The conference is jointly sponsored by the Chicago Section of the American Welding Society and the Armour Research Foundation of Illinois Institute of Technology.

"Better assurance of weld soundness is being provided, and inspection costs have been reduced through developments in techniques and new equipment", according to Bland, who is manager of Welding Development at Knolls Atomic Power Laboratory. He feels, however, that engineers who require three or four tests, when only one could provide sufficient results, is jeopardizing the low cost value of welding.

Bland will give his "Reasons and Requirements for Nondestructive Testing of Welds" to nearly 300 scientists and engineers, who will assemble in Hermann Hall at Illinois Institute of Technology for the two day conference.

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It is unfortunate, he believes, that welding engineers have taken a back seat in framing welding standards, while other voices have led to the establishment of standards far in excess of normal safety and design requirements.

Providing a sounding board for new developments and problems in the welding field, the conference will also include papers on welding standards, methods of galvanized steel welding in automotive assembly, welding practices on the Polaris Missile, friction welding and high frequency resistance welds.

A highlight of the February 1 session will be a panel discussion on Electron Beam Welding, moderated by Walter L. Wyman, of the General Dynamics Corporation.

Inquiries concerning the conference should be addressed to John F. Rudy, supervisor of welding research, Armour Research Foundation, 10 West 35th Street, Chicago 16, Illinois.

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Monday, January 8, 1962

FOR RELEASE:

NEW PRODUCT AND MARKETING SERVICE INTRODUCED BY CHICAGO RESEARCH ORGANIZATION

NEW YORK, Jan. 8--A new scientific approach to more efficient investment in new products and reliable determination of markets for American business was introduced today by a leading Chicago research organization.

Developed by the Armour Research Foundation of Illinois Institute of Technology, the new concept will help top management make critical decisions involving business expansion and diversification, according to Dr. Haldon A. Leedy, executive vice president and director.

Successful business growth is no longer merely developing a technically superior product, or just determining the geographical and social needs for goods, Leedy explained. In our rapidly accelerating technology, new products are quickly obsoleted, and buying habits are altered overnight, he said.

The decision to invest in new product expansion must be based upon a broad knowledge of developments and trends in all scientific areas, according to Leedy. Many poor investments occur as a result of technical knowledge which is limited to only a basic area of scientific endeavor, he went on.

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Innovations which might obsolete a perfectly good technical advance could very well come from a scientific area which was seemingly non-conflicting.

As examples, Leedy cited the effects of developments in plastics upon metals, and chemical developments upon electronics. It would indeed be unwise to invest in the development and marketing of a new alloy without first investigating what is going on in plastics, which is an area not usually associated with metals, he pointed out. Similarly, manufacturers of electronic products must constantly feel the pulse of chemical developments in semiconductors and fuel cells in order to make the critical decision to market a new product.

According to Leedy, the Foundation's service offers business a multiple-skilled analysis of new product areas. With more than 850 experienced scientists working in all sciences, a cross-fertilizatio of knowledge from all areas of development will be called upon.

The Foundation's diversity of technical talents enhances the complete service which extends from fundamental concept and product and package design to technical development, manufacturing processes, and market area determination.

Leedy said the ARF service will include:

--A preliminary study to determine whether a company can diversify with new product opportunities, and whether there exists a great enough market for those products

--After product possibilities and characteristics have been identified, the data will be turned over to ARF scientists for technical development and design of both product and package

--Finalize marketing plans, such as how and where a product should be marketed and what its price should be

Add 2--New Product Development

Introduced in conjunction with the opening today of the firm's New York office, the ARF system is based upon a close working relationship between physical scientists and economists and management research specialists.

Under the Foundation approach, Leedy pointed out, physical scientists, who keep abreast with current developments and future technological trends, work hand in hand with management research specialists, who are constantly studying the needs for products and the buying trends of the public.

Leedy stated that all present Foundation facilities will be utilized in developing product potentials, since many products require effort from numerous scientific disciplines.

It was emphasized, however, that ARF will not act as an "inventor service". The new product, one with which a company can best compete, may be an improvement of a product already being marketed or even one which is already in production by a competitive company.

The newly established New York Office, at 1 Rockefeller Plaza, will serve eastern sponsors as a link with ARF's research facilities at Technology Center in Chicago.

The Foundation conducts industrial and government-sponsored research in physics, chemistry, electronics, management, mechanics, metals and ceramics, and fluid dynamics and propulsion.

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James Stathas
New York Telephones
JUdson 2-3414

FOR RELEASE: January 8, 1962

NEW YORK, Jan. 8--A leading Chicago research organization today announced the opening of new offices at 1 Rockefeller Plaza in New York City.

To head the New York office for the Armour Research Foundation of Illinois Institute of Technology is Wayne Kent, recently appointed manager of New York operations.

The offices will expedite serving the requirements of ARF's growing list of eastern industrial sponsors, and will also be used as the Foundation's main communications link between New York and Chicago.

The scientific organization annually conducts approximately $17 million in industrial and government-sponsored research in the fields of chemistry, electronics, management, mechanics, metals and ceramics, physics, and fluid dynamics and propulsion.

ARF's physical facilities are located in Chicago's 115 acre Technology Center. An affiliate of Illinois Tech, the Foundation has more than 1,200 employees, most of which are scientific personnel.

Prior to joining ARF four years ago as a management research analyst, Kent held new product development positions with Kaiser Aluminum and Chemical Sales Corp., and with George Fry and Associates. A member of the American Marketing Association, Kent received his bachelor's degree from Northwestern University and his master's degree from Syracuse University.

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OR RELEASE:
IMMEDIATE

DEBUNKS AUTOMATION SCARE

CHICAGO, ILL.,Jan. 11--Industry's failure to keep abreast of technological progress-not automation-is the threat to employment today, according to a leading Chicago educator.

"Employment depends on a healthy expanding, productive economy, and we cannot assume that this kind of economy is our birth-right because of our great natural wealth, personal initiative, and technological know-how", said Dr. John T. Rettaliata, President of Illinois Institute of Technology. His remarks were addressed to a gathering of over 600 leading industrialists, during luncheon at the State-Wide Minority Group Employment Conference at the Sherman House in Chicago. The Conference is sponsored by the Illinois State Chamber of Commerce.

Rettaliata voiced a four-point plan for stepped-up educational development to delegates, which included:

1) An increase in reserves of basic knowlege, or fundamental research as opposed to applied research.

2) Improved technological education

3) Reduced loss of potential scientific and engineering talent.

4) Remapping of trade school level training programs to include a higher degree of versatility and mobility of skilled labor forces.

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"These steps must be pursued to prime the educational fountainhead that nurtures our technological civilization", he said, adding that the rest of the world is eagerly trying to catch up with American scientific achievement.

Charging that management, labor and education alike have not been too concerned with the ways and means by which more education is to be made available, Rettaliata warned delegates to the Conference that "time is not on our side".

"I shall also offer a suggestion about fair employment", he said, challenging that "No employment is fair to the employee, the employer, or America, that does not utilize the full capabilities of the individual. With the acceleration of knowlege and technological innovation, it will not merely be a matter of opening up opportunity for training the groups that have been educationally underprivileged. Just about everyone who is employable will have to keep going back to school for more training."

The two day conference, which ends today, featured leaders in the fields of industry, legislation and education, who discussed topics related to the new Illinois Fair Employment Practices Commission.

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January 12, 1962

URGES MORE WIDESPREAD USE OF WELDING

CHICAGO, ILL.--The inability of many engineers to keep pace with rapid advances in welding techniques as economical methods of metal joining could be costing industry billions of dollars annually, according to a midwestern industrialist.

"Very frequently the engineer is someone who does today the things which were done by engineers yesterday, instead of preparing today to do what the progressive engineer will do tommorrow", warns James F. Lincoln, board chairman of the Lincoln Electric Company.

"A very good illustration of this hesitation of the engineer to make progress is in his hesitation to utilize arc welding. In spite of the fact that an arc weld of the same section as the parent metal is always stronger than the parent metal, and less costly, the engineer in many cases rejects welding entirely. To do that, he puts the weld under tests which have no possible basis in reason, increasing the cost enormously and often eliminating the proper design."

Lincoln will tell nearly 300 scientists and engineers "What Should Be Done About Welding Standards" during the 8th Annual Midwest Welding Conference. Jointly sponsored by the

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Chicago Section of the American Welding Society and the Armour Research Foundation of Illinois Institute of Technology, the Conference will be held January 31 to February 1, in Hermann Hall on the IIT campus.

Conference members will be urged by Lincoln to "accept their responsibility to the economy" through a proper integration of welding problems into the problems of design.

"The engineer who we expect to be the expert in his line must accept this responsibility of leadership so that he is the first to make the progress which is available. If he does not, he is not accepting the responsibility which his training should give", said Lincoln, adding that engineers who develop and lead the way to the widespread use of welding are the hope of the future.

Another highlight of the two day Conference will include a panel discussion of Electron Beam Welding, featuring welding experts in the fields of space flight, atomic energy, and automotive assembly. Chairman of the panel will be Walter L. Wyman of the General Dynamics Corporation.

Inquiries concerning the Conference should be addressed to John F. Rudy, supervisor of welding research, Armour Research Foundation, 10 West 35th Street, Chicago 16, Illinois.

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OR RELEASE: IMMEDIATE

Jan. 17, 1962

OLD YEAR ENDS ON A DUSTY NOTE

CHICAGO, ILL.--New Year's revellers may have noted a little more grey on the beard of Father Time as 1961 drew to a close, but that was understandable at Armour Research Foundation of Illinois Institute of Technology.

Ranking highest for the year in total average monthly dustfall with 81.8 tons per square mile, December 1961 went down on record as the dustiest December in 14 years.

However, according to Samuel Radner, research scientist, the year-end average for 1961 ranked third lowest since 1948, when measurements were initiated at the Foundation. The 1961 annual average of 48.7 tons per square mile was edged out by 1959 readings of 48.6 tons, and bettered by the 1960 average of 41.0 tons.

South Side housewives may have noticed a little more dust than usual in December, said Radner, who pointed out that the month's highest readings were recorded at Stony Island and 75th Street, and Cottage Grove and 44th Street, with 209.3 and 178.3 tons per square mile respectively. Total average dustfall at the two stations a year before amounted to 62.9 and 36.3 tons respectively.

Although no definite reasons could be given for the increases, Radner said they may be due to large quantities of salt and sand used in removal of ice hazards from streets along heavily traveled routes.

Add 1--December Dustfall

The station on 7350 Pratt Avenue maintined the lowest reading again in December, with a measurement of 22.2 tons per square mile, followed by the 1620 W. 99th St. station with 38.2 tons.

Sta. No.	Station Address	Readings in December 1961	Nov. 1961	Dec. 1960
1	State and Adams	102.1	98.3	96.1
2	33 N. La Salle	114.6	90.5	93.5
	Loop Average	108.4	94.4	94.8
3	2135 S. Michigan	102.5	57.8	66.7
4	825 E. 44th	178.3	47.5	36.3
5	1362 E. 59th	70.2	40.5	37.1
6	7351 Stony Island	209.3	71.1	62.9
7	67 W. 113th. Pl.	47.5	32.2	36.3
8	8858 Marquette	79.9	54.8	44.2
9	3105 W. 63rd	61.5	40.4	44.3
10	6140 S. Melvina	60.2	38.9	49.0
11	7559 Eggleston	56.6	29.8	24.9
12	1620 W. 99th	38.2	21.5	16.7
13	3608 Ogden	60.5	34.6	30.3
14	1500 W. Monroe	114.0	61.0	49.9
15	5055 Fulton	67.3	55.5	34.6
16	2940 W. Cortland	93.9	62.9	36.3
17	5602 Bolden	51.8	31.1	19.3
18	3499 N. Sawyer	58.6	48.9	46.0
19	7350 Pratt	22.2	28.3	16.8
20	54 W. Hubbard	95.4	66.0	65.8
21	551 Grant Pl.	75.3	59.9	51.1
22	3532 Sheffield	100.5	88.0	68.0
23	1622 Pratt Blvd.	44.3	51.1	25.7
25	2240 W. 37th	87.0	41.3	40.3
Average (incl. Loop average)		81.8	50.7	43.4

YEAR-END TOTALS

Yearly Avg. 1948-'61		Monthly Avg. 1961	
1948-58.2	1955-53.4	Jan. - 43.8	July- 32.9
1949-58.3	1956-57.1	Feb. - 57.5	Aug.- 31.4
1950-59.0	1957-54.4	Mar. - 79.0	Sept· 38.6
1951-58.4	1958-52.1	Apr. - 44.8	Oct.- 44.1
1952-56.2	1959-48.6	May. - 40.8	Nov.- 50.7
1953-53.6	1960-41.0	Jun. - 39.4	Dec.- 81.8
1954-56.6	1961-48.7		

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FOR RELEASE:

IMMEDIATE

January 24, 1962

CHICAGO, ILL.--Illinois senior U. S. Senator Everett M. Dirksen will be the main speaker at Illinois Institute of Technology's commencement ceremonies, to be held Saturday, January 27, at 8:15 p.m., in the Institute's Hermann Hall student union building.

Dirksen's subject will be "The Magic of Believing."

Dr. John T. Rettaliata, Illinois Tech president, will award degrees to 299 students completing their studies in both the graduate and undergraduate divisions of the Institute. Covering the fields of engineering, science and liberal studies, 200 B.S., 92 M.S. and 7 Ph.D. degrees will be awarded.

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FOR RELEASE:
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January 25, 1962

CHICAGO, ILL.--Through the recent award of a $41,000 National Science Foundation grant, Illinois Institute of Technology is one of two schools in the United States offering college engineering teachers a summer course teaching mechanics at an advanced level.

The NSF funds will allow 30 college teachers to study mechanics at Illinois Tech this summer. Each teacher will receive an average of $1,000. No tuition fees are charged.

According to the director of the summer institute, Dr. Peter Chiarulli, professor and chairman of the Illinois Tech mechanics department, "This NSF grant actually allows us to pay teachers to attend school, and they are then enabled to further their education in lieu of other summer work activities."

Chiarulli added that the objective of the course is to give engineering college teachers a firm grasp of the fundamental principles of physics and mechanics, which are the bases for the engineering subjects taught by the instructors. The teachers will, in turn, be able to use this basic material in their class presentations.

During the summer of 1961, the first time the mechanics course was offered, 30 teachers from 20 states and Canada attended the special institute at Illinois Tech.

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FOR RELEASE: IMMEDIATE

January 26, 1962

CHICAGO, ILL.--Two outstanding outdoor accomplishments performed by Chicagoans during 1961 will be featured at the 15th annual Illinois Institute of Technology Alumni Sports Dinner, to be held Friday, Feb. 2, beginning at 6:30 p.m. in the Institute's Hermann Hall student union building.

Gordon Gould, Chicago Tribune feature writer, will present commentary and movies on his motor trip through road-less jungles from North to South America: Ted Erikson, Armour Research Foundation scientist who made the record-breaking swim from Chicago to Michigan City, Ind., will recount his experiences, including his long-distance swim in Florida's Cypress Gardens.

About 350 alumni, their friends and relatives will attend the dinner. Program chairman is Robert A. Tetik, chief of metal processes, Teletype Corp.

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FOR RELEASE: IMMEDIATE

January 29, 1962

CHICAGO, ILL.--Out to revenge their two losses to the University of Chicago last year, the Illinois Tech five will meet the Maroons in Chicago's fieldhouse, Tuesday, Jan. 31, after a two week lay-off for final examinations.

The Techawks, boasting an 8-2 season record, are unbeaten this season in a regulation contest, recording two over-time losses during the Rochester Tech (N.Y.) tournament in December.

John Bagley, senior guard and captain of the Illinois Tech squad, has been a key factor in attaining the team's eight wins through his clutch shooting and deft ball-handling. Dan Benevich, 6-4 forward, is the team's top scorer with 23.9 average. Benevich has scored over 30 points in five tilts this year.

In their last game, the Techawks gave the Aurora College Spartans their second loss in twelve contests, 86-66.

The Chicago Maroons, sporting a 9-2 record, are led by Larry Liss, Joel Zemans, and 6-8 Gene Erickson, and have a front line average height of 6-6. In their last game, they routed Wayne State, 61-59.

Chicago is currently ranked fourth nationally in defense according to NCAA small college statistics, allowing their opponents only 53.1 points a game. Illinois Tech is 28th in the same department, allowing their opponents 59.7 points a game

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January 29, 1962

FOR RELEASE: IMMEDIATE

CHICAGO, ILL.--Illinois Institute of Technology's traditional "Presidents' Reception" for new students and their families, Sunday, Feb. 4, will begin mid-year orientation activities at Technology Center.

Dr. John T. Rettaliata, Illinois Tech president, and A. V. Platt, president of the Alumni Association, will greet the expected 150 visitors during the informal reception to be held in Illinois Tech's Mc Cormick lounge, 71 E. 32nd St. beginning at 4 p.m.

The program, sponsored by the IIT Alumni Association, will provide an opportunity for the new students and their families to see the Illinois Tech 115 acre campus and to talk informally with faculty and administrative officials.

Orientation activities will continue throughout the week with a variety of scholastic, athletic, fraternity and social functions aimed at introducing the students to college life.

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For further information on this release, contact:
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January 30, 1962

CHICAGO, ILL.--An evening course teaching new insights into consumer behavior and ways to create favorable marketing environments will be offered for Chicago area merchandising, advertising and public relations people beginning Monday, Feb. 19, at the Institute of Design, Illinois Institute of Technology.

Prof. Jay Doblin, head of the Institute of Design, today said the new course, Visual Marketing, has been especially formulated to benefit creative and business people whose earnings and advancement depend upon the successful selling of goods and services but who have not had recent opportunity to formally study new knowledge of modern mass merchandising.

Two-hour classroom sessions will be held each Monday, from 7 to 9 p.m., for a period of 17 weeks at IIT's Seigel Hall, 3301 S. Dearborn St. Noted sociologists, psychologists, consumer research specialists and educators will participate as lecturers, Doblin said.

The course will deal with new concepts of why people choose the goods and services they do from the vast competitive offerings made through non-personal channels of sales, Doblin explained. This will include study of sociological and psychological aspects of marketing and the individual consumer's behavior--how he learns, sees things, forms opinions and judgements and responds to stimuli. It also will embrace group behaviors and norms, and how this knowledge can be used to create and broaden consumer appeal, Doblin explained.

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An enrollment of up to 30 persons will be accepted for the Visual Marketing course. Application for enrollment should be made by Monday, Feb. 19, Doblin said. Two undergraduate credits may be earned from the semester's study.

Inquiries should be addressed to the director, Institute of Design, Illinois Institute of Technology, 3360 S. State St., Chicago 16, Ill.

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Jan. 31, 1962

FOR RELEASE: IMMEDIATE

CHICAGO, ILL.--Registration for the spring semester at Illinois Institute of Technology will begin Friday, Feb. 2, for new students and those who have not pre-registered.

Evening school graduate students may register Feb. 2, between 6 p.m. and 8:30 p.m.

Undergraduates enrolling in the evening division will register Feb. 5-6, between 6 p.m. and 8:30 p.m.

Day division undergraduate registration will take place Feb. 7, between 12:30 p.m. and 4:30 p.m.; and on Feb. 8, between 8:15 a.m. and 12 noon.

Graduate students enrolling in the day school will register Feb. 8, between 1 p.m. and 3 p.m.

All new freshmen will be registered Feb. 9, beginning at 8:15 a.m.

Classes in all categories will begin Monday, Feb. 12. Late registration extends from Feb. 12 to Feb. 23.

Further information about Illinois Tech's fall semester may be obtained from the Registrar, Illinois Institute of Technology, 3300 S. Federal St., Chicago 16, Ill.

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OR RELEASE: IMMEDIATE

CHICAGO, ILL., Feb. 1--George Philips has been named director of the Management Research Division of the Armour Research Foundation of Illinois Institute of Technology, it was announced today by Dr. Haldon A. Leedy, director.

He succeeds John K. Diederichs who has been director of the division for the past seven years, and who was recently named vice president of the management consulting firm of Edwin C. Johnson & Associates.

Philips joined Armour in 1956, and became assistant director of the Management Division in 1959. While at the Foundation, he conducted more than 40 research programs in the areas of company diversification, organizational and operational analysis, marketing, and long-range management planning.

Prior to joining Armour, he worked as a cost-analyst in the comptroller's division of the Ford Motor Co., and was responsible for reviewing administrative, inventory, and production control procedures to improve inter-plant cost performance.

Philips received a bachelor of science degree in civil engineering from Cooper Union, and a master of science degree in industrial management from Massachusetts Institute of Technology.

He is a member of the Research and Planning Committee of the Chicago Association of Commerce and Industry, the American Marketing Association, and the Technical Institute for Management Science. He also serves as an instructor in the evening division of Illinois Institute of Technology.

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CA 5-9600, Ext. 745

FOR RELEASE: IMMEDIATE

CHICAGO, ILL., Feb. 1--George Philips has been named director of the Management Research Division of the Armour Research Foundation of Illinois Institute of Technology, it was announced today by Dr. Haldon A. Leedy, director.

He succeeds John K. Diederichs who has been director of the division for the past seven years, and who was recently named vice president of the management consulting firm of Edwin C. Johnson & Associates.

Philips joined Armour in 1956, and became assistant director of the Management Division in 1959. While at the Foundation, he conducted more than 40 research programs in the areas of company diversification, organizational and operational analysis, marketing, and long-range management planning.

Prior to joining Armour, he worked as a cost-analyst in the comptroller's division of the Ford Motor Co., and was responsible for reviewing administrative, inventory, and production control procedures to improve inter-plant cost performance.

Philips received a bachelor of science degree in civil engineering from Cooper Union, and a master of science degree in industrial management from Massachusetts Institute of Technology.

He is a member of the Research and Planning Committee of the Chicago Association of Commerce and Industry, the American Marketing Association, and the Technical Institute for Management Science. He also serves as an instructor in the evening division of Illinois Institute of Technology.

ws from
ILLINOIS INSTITUTE OF TECHNOLOGY
35 WEST 33RD STREET TECHNOLOGY CENTER CHICAGO 16, ILLINOIS

Public Relations
Serving: Illinois Institute of Technology
Armour Research Foundation
of Illinois Institute of Technology
Institute of Gas Technology

For further information on this release, contact:

Jim Stathas
CAlumet 5-9600 EX 745
2/9/62

FOR RELEASE:
IMMEDIATE

CHICAGO -- Under a special program, outstanding engineering doctoral students at Illinois Institute of Technology will be excused from repayment of loans by the school if they become engineering teachers, it was announced today by Dr. John T. Rettaliata, president.

Through the award of a $60,000 Ford Foundation grant announced recently, Illinois Tech will make "forgivable" loans to doctoral students who wish to enter engineering faculty careers but who require financial assistance.

If the recipient of a loan does enter a faculty career in any accredited engineering college or university in the United States or Canada, the entire loan will be "forgiven" within five years or less of teaching, depending upon the amount borrowed. If he does not become an engineering teacher, he will be required to repay the loan at the rate of $1,000 per year.

The loans will be available to present students for the duration of their studies, and to students entering the program in the next two years. Each accepted applicant may not receive more than a total of $10,000. A candidate will be accepted in accordance with his potential both as a doctoral student and as a teacher of engineering.

These loans are meant to meet legitimate personal financial needs that cannot be met by other means already at the applicant's disposal such as fellowships and part-time assistantships.

This program was initiated at Illinois Tech last year under a smaller Ford Foundation grant, and will continue for the next two years.

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For further information on this release, contact:
Conrad E. Locander
CAlumet 5-9600 Ext 745
Mailed 2/13/62

FOR RELEASE: IMMEDIATE

COLLEGES TO CONVENE ON UN

CHICAGO ILL -- More than 250 Chicagoland college students will take part in the 1962 College Conference on the United Nations, to be held at Illinois Institute of Technology, February 18, launching Brotherhood Week here.

Sponsored by the Chicago chapter of the American Association for the United Nations, the day's conference is designed to acquaint students with the functions of the UN in securing international peace.

Highlighting the activities will be Dr. Milton Rakove, Professor of Political Science at the University of Illinois (Pier); and Donald M. Schwartz, Sun-Times Correspondent to the UN. Rakove will address the college assembly at 10:45 a.m. on the "Structure and Operation of the UN", while Schwartz is scheduled to speak at 3:00 p.m. on "The Reality of the UN".

Panel discussions by students from Concordia College, DePaul, Illinois Institute of Technology, Mundelein and Rosary College will feature student opinion on such timely topics as the financial crisis facing the UN, disarmament, Red China, the situation in the Congo and other problems facing the UN

"Registration is open to all Chicagoland college age students", said David M. Rosen, vice president of the AAUN in Chicago, and executive director of Chicago's B nai Brith Youth Organization. A registration fee of $2.50 per student, which includes a steak luncheon, will be accepted

(more)

by the AAUN office, 67 E. Madison St. through February 14, he said, adding that fees will also be accepted at the conference registration desk on the day of the meeting.

PROGRAM

1962 COLLEGE CONFERENCE ON THE UNITED NATIONS
HERMANN UNION BUILDING
ILLINOIS INSTITUTE OF TECHNOLOGY

February 18, 1962

9:45..........	REGISTRATION	Entrance to Hermann Union Auditorium
10:30.........	WELCOME	Ronald L. Waller, IIT Conference Chairman Dr. Donald W. Smithburg, IIT Assoc. Professor, Political Science Dean Thomas E. Hogan, IIT Dean of Students
10:45.........	"STRUCTURE AND OPERATION OF THE UN"	Dr. Milton Rakove U of I(Pier) Prof. of Political Science
11:45.........	PANELS ON UN ACCOMPLISHMENTS	

COLLEGE PANEL	ROOM NUMBER
Concordia College	301
Illinois Institute of Technology	302
Mundelein College	303
Rosary College	304

12:45.........	LUNCHEON	Hermann Union Cafeteria

Folk songs by Vern Kalshan and Rudy Marik, Illinois Institute of Technology

1:30..........	PANEL DISCUSSION PERIOD	

COLLEGE PANEL	ROOM	TOPIC
Concordia	301	"The Financial Crisis Facing The United Nations"
DePaul	305	"Disarmament"
IIT	302	"Rising Hopes and Expectations"
Mundelein	303	"Red China"
Rosary	304	"The Congo Situation"

3:00..........	"THE REALITY OF THE UN"	Donald M. Schwartz Sun Times Correspondent to UN

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For further information on this release, contact:
James Stathas
CAlumet 5-9600, ext. 745

OR RELEASE: IMMEDIATE

February 16, 1962

CHICAGO--For the first time since its inception the American Power Conference will devote a part of its program to a general, non-technical subject. Featured at the 1962 Power Conference will be a full session on "factors associated with manpower problems in the electric power industry."

The conference, sponsored by Illinois Institute of Technology, will be held on March 27-28-29 at the Sherman Hotel, Chicago.

Speaking during the morning portion of the manpower session, which will emphasize engineering problems which accompany the dynamism of the power industry, will be: V.F. Estcourt, manager of the steam generation department, Pacific Gas & Electric co.; C.J. Baldwin,Jr., generation engineer, Westinghouse Electric corp.; J. Estrada, manager of station operations, Philadelphia Electric co.; and W.G. Meese, director of the engineering research department, the Detroit Edison co.

The afternoon session will describe the environmental factors which affect the power industry's ability to attract quality engineers and technicans. Speaking will be Dr. W.G. Torpey, consultant, Executive Office of The President, Office of Engineering Planning, Washington, D.C.; Dr. C.R. Soderberg, Massachusetts Institute of Technology; Larry Dwon, manager,

-more-

engineering manpower, American Electric Power Service corp.; and Philip G. Eckert, chief engineer, suburban area, Illinois Bell Telephone co.

This meeting is sponsored by the American Institute of Electrical Engineers Subcommittee on Advancement of Power Engineering.

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For further information on this release, contact:
James Stathas
CAlumet 5-9600, Ex 745

OR RELEASE:

IMMEDIATE

February 21, 1962

CHICAGO -- Pianist Roger Williams will present a concert at Illinois Institute of Technology Saturday, March 3, at 8:30 p.m., in the school's Hermann union building auditorium, 33rd and Dearborn sts.

At the concert, which is open to the public, Williams will play classics, pops, jazz, and rock and roll. Reserved seat tickets may be purchased at the door or may be obtained by enclosing a check to David A. Spaeth, 3366 S. Michigan ave., Chicago 16. Cost is $2.50 per person. Organizations may purchase tickets in blocks.

Williams, a nationally-known musician, has made numerous personal appearances on major network presentations. His record albums include "Roger Williams Plays Gershwin," and the "Fabulous Fifties."

The Williams concert is one of a current series sponsored by the Illinois Tech Union Board, a student organization.

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R RELEASE: Immediate

For further information on this release, contact:
Conrad E. Locander
CAlumet 5-9600,Ext 745

Date mailed: 2/21/62

CITY BREATHES RELIEF AS DUSTFALL DECLINES

CHICAGO ILL -- Rising steadily since August of last year, Chicago's total average monthly dustfall for January 1962 dropped to 55.3 tons per square mile, according to scientists at Armour Research Foundation of Illinois Institute of Technology. Measuring 67.7 per cent of December's 81.8 tons per square mile, the January measurement was still 26 per cent above measurements taken in January of 1961.

All components of city dustfall showed a drop from December, with the exception of the combustible content which showed a 13 per cent increase, according to Samuel Radner, Foundation scientist. Radner said the increase reflected heating requirements in homes and factories for the month which was 20 per cent above that of December as indicated by U.S. Weather Bureau reports.

"The same reports show that the ground was covered by snow on 29 days in January and 16 days in December", Radner said, adding that snow cover tends to reduce windborne dust.

Highest readings for January were obtained at La Salle and Washington (135.1 tons) and Sheffield and Addison (101.7 tons), while the month's lowest readings were taken on Chicago's South Side at 99th and Ashland (27.5 tons) and 113th and State (31.2 tons).

By area, the North Side stations averaged 50 tons per square mile, the Central Area averaged 72 tons, and the South Side stations averaged 53 tons for the month.

(more)

Add 1 - January dustfall

CHICAGO TOTAL DUSTFALL
Trends by Station
January, 1962
Tons Per Square Mile Per Month

Sta. No.	Station Address	Readings in January, 1962	Dec. 1961	Jan. 1961
1	State & Adams	81.2	102.1	99.0
2	33 N. La Salle	135.1	114.6	88.3
	Loop Average	108.1	108.4	93.7
3	2135 S. Michigan	66.5	102.5	63.1
4	825 E. 44th.	74.1	178.3	37.1
5	1362 E. 59th.	46.6	70.2	34.5
6	7351 Stony Island	71.4	209.3	54.5
7	67 W. 113th. Place	31.2	47.5	27.1
8	8858 Marquette	79.8	79.9	39.4
9	3105 W. 63rd.	37.9	61.5	30.5
10	6140 S. Melvina	62.0	60.2	32.1
11	7559 Eggleston	40.1	56.6	27.0
12	1620 W. 99th.	27.5	38.2	16.0
13	3608 Ogden	49.1	60.5	29.4
14	1500 W. Monroe	46.6	114.0	56.9
15	5055 Fulton	44.2	67.3	33.9
16	2940 W. Cortland	42.6	93.9	43.9
17	5602 Belden	41.9	51.8	27.4
18	3944 N. Sawyer	38.3	58.6	51.9
19	7350 Pratt	41.0	22.2	17.6
20	54 W. Hubbard	68.0	95.4	66.4
21	551 Grant Place	54.0	75.3	54.9
22	3532 Sheffield	101.7	100.5	99.6
23	1622 Pratt Blvd.	36.9	44.3	30.7
25	2240 W. 37th.	62.3	87.0	41.8
Average (incl. Loop average)		55.3	81.8	43.9

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For further information on this release, contact:
Jim Stathas
CAlumet 5-9600 EXt 744

February 27, 1962

OR RELEASE:

IMMEDIATE

CHICAGO -- James G. Flood, partner in the engineering consulting firm of Walter H. Flood & Co., has been named general chairman for the 1962 Alumni Fund of Illinois Institute of Technology, it was announced today by A.J. Platt, president of the Illinois Tech alumni association.

Also announced was the appointment of O. Jules Poupitch, chief research counsultant for Illinois Tool Works, as chairman of the 1962 Special Gifts committee.

As general chairman, Flood will organize a working team of alumni to handle personal solicitation in companies where alumni are employed in metropolitan Chicago, its suburbs, and in communities across the nation. Last year, Illinois Tech's Alumni Fund set an all-time record, collecting $347,264 from 4,852 contributors.

Flood, a 1940 IIT graduate in chemical engineering, resides at 2022 E. 72nd pl., Chicago. Poupitch graduated in chemical engineering from Illinois Tech in 1925, and resides at 626 Greenview, Itasca.

-30-

American Power Conference

DIRECTOR
R. A. BUDENHOLZER

ILLINOIS INSTITUTE OF TECHNOLOGY
TECHNOLOGY CENTER
CHICAGO 16, ILLINOIS
Telephone CAlumet 5-9600

SECRETARY
EDWIN R. WHITEHEAD

February 28, 1962

MEMO TO: City Desks, Science Editors, Financial Editors, Editors and Staff Members of Technical and Trade Publications

SUBJECT: 1962 AMERICAN POWER CONFERENCE, March 27-28-29, at the Hotel Sherman, Chicago, Sponsored by Illinois Institute of Technology

ENCLOSURE: Advance Program for 1962 APC

MORE THAN 3,000 industrial and electric utility executives, engineers, educators, and government officials will attend APC, to hear about and exchange notes on the latest developments in the power fields.

APPROXIMATELY 100 technical papers and 6 non-technical talks will be presented with subjects ranging from federal ownership of power facilities, to operation of the Dresden Nuclear Power Station

PRESS FACILITIES: The APC press room will be located on the Sherman Hotel mezzanine, adjoining the general registration area, and will open each day at 9 a.m. Press registration and the issuing of press badges will take place in the press room. The staff will make every effort to assist you in getting materials you need, including the available preprints of papers and talks.

If we can be of help before or during the conference, please do not hesitate to call upon us. For further information telephone or write:

Jim Stathas
Jim Stathas
Press Relations
Technology Center
Chicago 16, Illinois
Calumet 5-9600, EXt. 744

RATING UNIVERSITIES
e College
State University
tern University
niversity
versity of Iowa
y of Illinois
y of Michigan
y of Minnesota
y of Wisconsin

24th Annual Meeting • March 27, 28, 29, 1962

REGIONAL ASSOCIATED UNIVERSITIES
Agricultural and Mechanical College of Texas
California Institute of Technology
Georgia Institute of Technology
Massachusetts Institute of Technology
New York University

COOPERATING SOCIETIES
American Institute of Chemical Engineers
American Institute of Electrical Engineers
American Institute of Mining, Met. and Pet. Engineers
American Society of Civil Engineers
American Society of Heating and Air Cond. Engineers
American Society of Mechanical Engineers
National Association of Power Engineers
Western Society of Engineers
Engineers' Society of Milwaukee

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OR RELEASE:
IMMEDIATE

For further information on this release, contact:
Jim Stathas
CAlumet 5-9600 EX 745

March 1, 1962

CHICAGO -- Thirty select college educators will attend an advanced nstitute in Kinematics of Mechanics this summer through a $38,700 grant warded to Illinois Institute of Technology today by the National Science oundation.

The institute will enable teachers to learn about latest advances made n the kinematics field, especially the rapid advances recently experienced n Germany and Russia, according to Dr. Andrew Fejer, director of the llinois Tech mechanical engineering department.

Fejer stated that the field of kinematics is experiencing rapid technological advances at this time because of its use in the expanding fields f automation, nuclear engineering, and space vehicles. Kinematics deals wit he study of moving bodies. For example, the speed, distance or path oving body will travel can be computed on paper--this knowledge can then e applied to the construction of a portion of a machine, such as a transission differential.

Participants will be selected from applicants who teach kinematics, achine design or related courses in a college or junior college, who ave degrees in engineering or the physical sciences.

No tuition or fees will be charged. Each participant will receive fellowship stipend of $75 per week for eight weeks, in addition to ependency and travel allowances. A total of six semester hours of raduate credit will be available.

Director of the institute will be Dr. Richard S. Hartenberg, professor f mechanical engineering at Northwestern University, recognized as an nternational authority on kinematics.

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Final date for submission of applications is March 30, 1962. Further information may be obtained by writing to: Prof. Alexander Cowie, NSF Summer Institute in Kinematics, Illinois Institute of Technology, Chicago 16, Ill.

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For further information on this release, contact:

M.T. Noar
CAlumet 5-9600 EX 744

R RELEASE:

Monday, March 5, 1962
12 noon (CST)

ELLIOT CITES LACK OF PROGRESS IN EDUCATION AS DANGER TO AMERICAN NATIONAL SECURITY

CHICAGO, Ill., Mar 5 -- America's complacent attitude toward progress in education, and not inferior educational standards, was blamed today for the nation's toe to toe struggle with Russia for technical and scientific supremacy by a Chicago scientist and educator.

Speaking before the City Club of Chicago, Dr. Martin A. Elliot, academic vice president of the Illinois Institute of Technology cited the importance of scientific and technical education to American national security.

He attacked public apathy in the past as a sad commentary on our culture when it takes an arms race and the motivation of fear to make the public aware of the importance of education.

Elliot cautioned the gathering that our national security will be seriously jeapordized unless we overcome the technical setbacks inflicted by the complacency of the past. We must produce the new science and technology necessary to give us the edge over our potential adversaries, he said.

In this age of accelerating technological progress, the battle for the balance of world power is being fought, not on the battlefield

-more-

as in the past, but rather in the research and development laboratories of the United States and the Soviet Union, he went on.

When Sputnik was orbited in 1957, the American public suddenly became cognizant of the technological capabilities of the U.S.S.R., Elliot pointed out. And for the first time, the public realized that science and technology were not solely for the creation of consumer comforts, but actually were the bulwark of our military capability.

Pointing out the long history of U.S. complacency toward progress in science education, Elliot cited the record of Nobel Prizes in chemistry and physics from the start of World War I to the end of World War II. Very few people were concerned with educational progress in this country in spite of the fact that only nine awards were earned by Americans, while no less than 23 were awarded to German and Austrian scientists.

Commenting on Russia's technical manpower buildup, Elliot warned that we must not underestimate the seriousness of Russia's intentions. Scientific capability is the basis of Communist strength.

Russia is graduating about twice as many engineers and scientists as the United States each year, according to Elliot.

While we lead in the graduation of physical and biological scientists, America's critical problem is in the area of engineering, he claimed. In the past four years, undergraduate engineering enrollments have dropped 14 percent, while overall enrollments in U.S. colleges have increased by almost 27 percent, he went on.

It is our collective obligation to see, by all means at our disposal, that increasing numbers of young people choose careers in science

-more-

and technology; to fail in this obligation is to court disaster!, Elliot exclaimed.

He pointed out that to emphasize science education only during times of world tension, not only hinders us competitively, but also denies us the attainment of our national purpose; the perpetuation of a free society.

We must realize that brains are our greatest resource, and that educated brains will perpetuate freedom for all of mankind, Elliot concluded.

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For further information on this release, contact:
James Stathas
CAlumet 5-9600 EX 744

March 6, 1962

R RELEASE:

IMMEDIATE

CHICAGO -- A total of 6,439 students have been enrolled at Illinois Institute of Technology for the spring semester according to registration statistics released today by Frederick R. Eckford, registrar.

The undergraduate enrollment accounts for 5,296 of the total. Of these, 1,832 are enrolled in full time day courses, while 3,464 are evening students.

Of the 1,143 enrolled in Illinois Tech's graduate division, 303 are listed as full time, while 840 registered either as evening or part-time graduate students.

The statistics also reveal that there are 259 women graduate and undergraduate registrations. Of the total, 165 women are undergraduates, and 94 are graduate students.

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For further information on this release, contact:
Conrad E. Locander
CAlumet 5-9600, Ext 745

Mailed: March 6, 1962

R RELEASE:

IMMEDIATE

STUDENTS TO CONVENE ON CAREERS

CHICAGO ILL -- New insights on career opportunities will be provided to nearly 2,000 Chicagoland high school and junior college students attending the 14th Annual Chicago Area Career Conference April 7.

The Conference, which has been slated to take place at Illinois Institute of Technology's Hermann Union Building, will feature panels composed of nearly 100 outstanding experts covering 33 career areas. It is jointly sponsored by the Chicago Sun-Times, Chicago Technical Societies Council, and Illinois Institute of Technology.

Endorsed by the Chicago Board of Education, Catholic Schools, Cook County, Will County, Lake County and DuPage County Schools, the Illinois High School Association, and others, the Conference is free of charge to participants.

The Conference will open at 8:40 a.m in the auditorium of Hermann Union Building, where members will assemble to hear a short welcome Eight panel sessions will be conducted simultaneously in four time segments: 9:40-11:00, 11:00-12:30, 1:30-2:50 and 3:00-4:20 Panels will consist of three outstanding experts in each field, and discussions will include career opportunities in art, physical science, engineering, music, health, and others for a coverage of 33 career areas.

-more-

"The atmosphere of panel sessions will be kept informal", said Howard C. Pettett, General Chairman of this year's Conference. He said that each panelist will speak for about 10 minutes, covering such topics as the nature of the work, educational requirements, present employment opportunities, salary ranges, advantages and disadvantages in the field, special requirements as to personality, skills and other characteristics peculiar to the field.

Registration blanks will be available shortly at most Chicagoland schools, according to Pettett, who advises interested students to see their Placement Counselors, Guidance or Careers teachers for full details. Registration blanks will also appear daily in the Chicago Sun-Times and programs listing all panel members, time and location of all sessions as well as a guide listing public transportation facilities will be sent to registrants.

-30-

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For further information on this release, contact:

M. T. Noar
CAlumet 5-9600, Ext. 744

R RELEASE: IMMEDIATE

Arnie F. Betts, public relations director of Allied Van Lines, has been named Associate Director of Development at Illinois Institute of Technology. The announcement was made by Robert E. Nelson, I.I.T. Vice President of Institutional Development. Betts will be responsible for establishing an expanded program of development and liaison with corporations and corporate foundations.

Prior to his position at Allied Van Lines, Betts was public relations director and congressional liaison officer of the Post Office Department's Chicago regional headquarters from 1954 to 1961.

A graduate of the University of Wisconsin School of Journalism, his earlier experience was in advertising agency work and the weekly newspaper field.

Betts was a member of the Wisconsin State Legislature from 1947 to 1953 where he was vice-chairman of the House Education committee.

Located 30 blocks south of Chicago's loop on a 110-acre campus, IIT is a privately endowed institution of some 7,000 students. Its assets exceed $50 million and its annual operating budget is $25 million. Since 1940 it has constructed or has under construction 36 buildings. Illinois Tech awards some 650 degrees annually of which nearly 130 are on the Masters or Doctorate level.

Armour Research Foundation of IIT, the central campus and

-more-

the following affiliated institutions comprise Chicago's Technology Center: The Institute of Gas Technology, The Research Center of the Association of American Railroads and the Institute of Psychological Services. The famed John Crerar Library is moving to Technology Center soon.

Mr. and Mrs. Betts, who reside at 410 Maple Avenue, Wilmette, have two children, Beverly, a sophomore at the University of Wisconsin, and Andrew, a junior at New Trier High School.

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CAlumet 5-9600, Ext 745

R RELEASE:

IMMEDIATE

Mailed March 15, 1962

CHICAGO ILL -- A Chicago ceramics engineer has been named to the Planning Committee on Masonry in Building of the National Academy of Sciences - National Research Council.

He is John M. Neff, Assistant Director of Metals and Ceramics at Armour Research Foundation of Illinois Institute of Technology. As part of the Committee, which met in Washington, D.C. on March 7, Neff will aid in the "advancement of science in building, the arts, and technologies which contribute to buildings for the betterment of mankind", the objectives of the Building Research Institute.

Neff joined Armour Research Foundation in 1946, where he has been in charge of ceramics activities since 1948. He has been active in ceramics research and development for the past 34 years.

From 1944 to 1946 Neff was plant superintendent for Repca Corporation, Detroit, Mich. Previously he had worked in the laboratories of the U.S. Gypsum Company, the Columbus Dental Manufacturing Company, and the Bausch & Lomb Optical Company.

Winner of the Orton ceramic fellowship at Ohio State University in 1940, Neff earned a Master of Science degree there in 1942 and received an honorary degree of professional ceramic engineer at Ohio State in 1940.

-more-

A member of the Materials Advisory Board National Academy of Sciences, American Ceramic Society, Building Research Institute and Building Research Advisory Board, Neff has done research on many types of ceramic materials, including dental porcelain, the development of new and efficient methods for building construction, flame-sprayed ceramic coatings, and low cost building materials from fly-ash and other light weight aggregates as well as on many materials problems of the space age.

One of Neff's chief aspirations is the development of a Building Technology Center at the Foundation, which will provide the construction industry with complete facilities for the development and effective utilization of new building materials, methods of construction, application, and material logistics.

Mr. and Mrs. Neff live at 2134 Hudson, Chicago.

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AMERICAN SOCIETY OF METALS

IMMEDIATE

M.T. Noar
CAlumet 5-9600 Ex 745

March 19, 1962

CHICAGO, ILL.--More than 300 students from forty-nine Chicago-area high schools are expected to attend a Career Days conference being conducted Tuesday April 3 by the American Society of Metals.

The purpose of the conference, which will be held at the Flick-Reedy plant in Bensenville, is to acquaint high school students, parents, and faculty with the latest developments and opportunities in the metallurgical sciences.

Much of the cause for the alarming decrease in college engineering enrollments is due to the lack of communication between students and their faculty advisors, and the practicing engineer, according to Charles A. Mueller, chief engineer of the Lindberg Engineering Co., who is chairman of the ASM Student Affairs Committee.

Commenting on Career Days, Mueller said that through the conference, high school students will be made aware of the requirements, the challenges, and the opportunities existing in engineering.

"Oftentimes, outstanding high school science students enter non-scientific fields through improper guidance or lack of knowledge of what science has to offer," he went on.

"With Career Days, we hope to guide students with scientific aptitudes into the field of engineering, and at the same time provide current knowledge of the field to parents and faculty members so they may be better prepared to advise students in the selection of proper careers," Mueller said.

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The significant role of the metallurgist in industry, education, and in America's space effort will be described by three leading scientists from local industry and from a well-known local research organization.

John D. Graham, chief engineer of the International Harvester Co., will describe the metallurgist's responsibility for material selection, quality control, and other methods by which an engineer works to develop and improve his compamy's products.

The part that research and metallurgical engineering is playing in the development of space technology will be the topic of Dr. David W. Levinson, assistant director of metals research at the Armour Research Foundation of Illinois Institute of Technology.

Harry A. Northrup, district manager of Republic Steel Corp. in Chicago will cover the relationship of the metallurgical engineer with top management. Northrup will also discuss engineering education and the opportunities of engineers in management.

The program of Career Days conference also includes a tour of the Flick-Reedy plant, which features Heat Pump, a unique system for heating and cooling.

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THE FOLLOWING ARE THE HIGH SCHOOLS PARTICIPATING IN THE CAREER DAYS CONFERENCE:

Elgin
St. Charles
St. Edward
Lake Park
Maine East
Maine West
East Leyden
West Leyden
Lemont
Mt. Assissi
Downers Grove
Naperville
Carl Sandburg
Thornton
Rich
Bloom
Blue Island
Oak Lawn
Notre Dame
Fenwick
West Chicago
Wheaton
Fenton
Marian

Glenbard West
Glenbard East
Elmwood Park
Maryville
Palatine
Oak Park-River Forest
St. Procopius
York
Proviso East
Proviso West
Riverside-Brookfield
Hinsdale
Lyons
Imaculate-Conception
Nazareth Academy
Niles
Evanston
New Trier
Loyola
Glenbrook
Deerfield
Arlington Heights
Prospect
Barrington

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For further information on this release, contact:

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R RELEASE: IMMEDIATE

March 20, 1962

BENEVICH TO CAPTAIN IIT CAGERS NEXT YEAR

CHICAGO -- Dan Benevich, 6'4", 200 pound forward, has been elected captain of the 1962-63 Illinois Tech basketball team.

A regular for three years, Benevich led the Techawks this past season in scoring with 483 points and 252 rebounds. During the season, he scored over 31 points in six contests, and had an over-all average of 23 points per game. A junior in electrical engineering, Benevich is a graduate of St. Ignatius High School and resides at 5112 S. Mozart.

Illinois Tech finished the season with a 14-7 record. As a team, the Techawks shot 46 per cent from the field compared to 41 per cent for their opponents. Tech outrebounded its opponents 825-615, and held them to an average of 63.8 points a game.

Nick Mathys, a junior in metallurgical engineering and a graduate of De La Salle High School, led the team in shooting percentages with 53 per cent from the field and 78 per cent from the free throw line.

IIT will have four of its five starters returning next season, losing present captain John Bagley, 6'2" guard, to graduation.

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R RELEASE:

IMMEDIATE

Mailed 3/20/62

FEBRUARY DUSTFALL UNCHANGED
RISE EXPECTED SOON

CHICAGO ILL -- Chicago's total average monthly dustfall for February remained nearly the same at 55.9 tons per square mile as measurements of 55.3 tons in January, but an increase is anticipated within the next couple of months.

"It would appear that the snow cover prevented enough wind raised dust to offset the dust produced by increased heating demands for the month", said Samuel Radner, dustfall specialist at Armour Research Foundation of Illinois Institute of Technology. Radner has been measuring dustfall and maintaining records of the city averages for the past 14 years.

Anticipating an increase in March, Radner said that it would probably be due to melting snow and ice which will uncover large quantities of loose dust. March's high winds may pick up this loose dust and mix it with airborne particles from heating, manufacturing and traffic he said.

Highest readings for February were made from samples at 8858 Marquette (137.4 tons), and in the Loop at Washington and La Salle (108.6 tons). It is interesting to note that the Marquette St. Station more than doubled over readings of 62.5 tons, made in February 1961.

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ADD 1-- February dustfall

Lowest readings for the month were taken at 3532 Sheffield Ave. (21.5 tons), 7350 Pratt Ave. (29.5 tons), and 1620 W. 99th St. (31.5 tons).

CHICAGO TOTAL DUSTFALL
Trends by Station
February, 1962
Tons Per Square Mile Per Month

Sta. No.	Station Address	Readings in January, 1962	Feb. 1962	Feb. 1961
1	State & Adams	81.2	70.5	73.9
2	33 N. La Salle	135.1	108.6	131.3
	Loop Average	108.1	89.5	102.6
3	2135 S. Michigan	66.5	60.3	71.2
4	825 E. 44th.	74.1	73.4	58.3
5	1362 E. 59th.	46.6	48.6	49.0
6	7351 Stony Island	71.4	84.8	78.3
7	67 W. 113th Place	31.2	61.4	47.4
8	8858 Marquette	79.8	137.4	62.5
9	3105 W. 63rd.	37.9	51.5	69.7
10	6140 S. Melvina	62.0	41.9	41.0
11	7559 Eggleston	40.1	46.5	46.4
12	1620 W. 99th.	27.5	31.5	33.5
13	3608 Ogden	49.1	53.0	45.8
14	1500 W. Monroe	46.6	52.5	58.9
15	5055 Fulton	44.2	51.1	48.3
16	2940 W. Cortland	42.6	41.5	60.1
17	5602 Belden	41.9	43.0	40.2
18	3944 N. Sawyer	38.3	31.9	73.7
19	7350 Pratt	41.0	29.5	22.3
20	54 W. Hubbard	68.0	88.7	82.6
21	551 Grant Place	54.0	36.0	51.4
22	3532 Sheffield	101.7	21.5	83.2
23	1622 Pratt Blvd.	36.9	53.6	45.7
25	2240 W. 37th.	62.3	57.4	50.6
Average (incl. Loop average)		55.3	55.9	55.5

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R RELEASE:

IMMEDIATE

Mailed 3/21/62

STUDENTS BETTER PREPARED FOR EARLY RESEARCH WORK

CHICAGO, ILL. --- A comprehensive two-year undergraduate research program to acquaint young students with depth-type basic research at an early point in their collegiate careers will be introduced this summer by the physics department of Illinois Institute of Technology.

According to Prof. Leonard I. Grossweiner, director of undergraduate physics research at IIT, the new student research program will enable highly qualified undergraduates to engage in full-time research work for extended periods. This is unique, he said, in that undergraduates ordinarily do not associate with extensive research work until they have earned bachelor degrees and begin studies for advanced degrees.

But perhaps more meaningful, said Prof. Grossweiner, is the fact that young students are achieving substantial educations in science in their high school classrooms and therefore are capable of doing important basic research after a minimum of college preparation.

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As a direct result of this growing student capability, Prof. Grossweiner said IIT is more than doubling its undergraduate physics research activity to permit this youthful talent to flourish and improve still more.

The new undergraduate research program which starts with the forthcoming school summer vacation is financed by a $20,265 grant from the Nation Science Foundation and will create a total of 28 student research openings over the next two years.

Seven undergraduates, said Prof. Grossweiner, are being selected to do full time research over a 10-week period beginning in June. Another seven are sought for the summer of 1963 and seven each for the 1962-63 and 1963-64 academic years.

Selections, said Prof. Grossweiner, will be made by the physics department faculty on the basis of scholastic achievement and personal interviews. Due to location, Prof. Grossweiner said it is expected most of the applicants who are selected will be students currently enrolled at Illinois Tech. But he said a few highly qualified students may be chosen from other schools for summer research.

At IIT the undergraduate researchers will be able to associate with a number of established physics research projects.

One of them is an investigation of the properties of the ruby optical maser, a device which radiates an intense beam of monochromatic

-more-

light and which holds great promise to further revolutionize man's communications systems.

Another is an investigation by flash photolysis of the instantaneous energy transfer processes that occur when particles react to light. Common examples of this invisible phenomena are photographic films and photosynthesis.

Also underway in the IIT physics research laboratories are studies involving sensitization of semiconductor films with dyes to observe how visible light changes the photoelectric properties of the films.

Other projects include observation and measurement of the surface changes caused in materials by friction, investigation of the effects of radiation on the physical properties of crystals, and analog studies of magnetism.

Former undergraduates doing research in these areas have made significant advances, Prof. Grossweiner said. By adding quantity to quality, he said new worthwhile contributions by undergraduates are almost certain.

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March 23, 1962

R RELEASE:

IMMEDIATE

CHICAGO--A summer course on "Basic Oil Hydraulics" will be offered at Illinois Institute of Technology this year from June 11 to 22.

The course is being held at Illinois Tech under the sponsorship of the National Conference on Industrial Hydraulics in response to requests from the oil hydraulics industry.

The intensified two-week course will cover fundamentals of the basic components used in hydraulic circuits. In addition to normal classroom lectures, more than a dozen guest speakers from industry will lecture on circuits and related items.

The class will meet six hours per day, five days a week. A high school education or its equivalent are prerequisite for the course. Tuition for the program is $125. Campus housing is available at the rate of $30 for the entire two-week period.

In previous years, the special class had drawn students from three foreign countries and from all parts of the United States. This is the eighth year that the course has been offered.

The course will be conducted by Dennis W. Prosser, Illinois Tech instructor of mechanics. Further information may be obtained from Prosser, Illinois Institute of Technology, 3300 S. Federal, Chicago 16, Ill.; or call CAlumet 5-9600, ext. 424.

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R RELEASE: Monday PM papers
March 26, 1962

RECORD FIRST HALF REPORTED BY ARMOUR RESEARCH FOUNDATION

CHICAGO, ILL., Mar. 26 -- An all-time high of $9,500,00 in research volume for the first six months of the current fiscal year was reported today by Dr. Haldon A. Leedy, Director of Armour Research Foundation of Illinois Institute of Technology.

In a report to the Board of Trustees, Leedy said the record figure is a 30 per cent increase over the same period last year, and represents the largest first half volume in the Foundation's 25-year history.

Leedy also revealed that new research contracts for the same period totaled $9,600,000, an increase of 38 per cent over last year, and another first half all-time high.

Approximately $2,375,000 of the new research total consists of new industry-sponsored research, Leedy reported. Pointing out the significance of this figure, he said that it represents a 69 per cent gain in new industrial research contracts over a year ago.

A significant reason for the increase in this area was attributed by Leedy to a growing trend toward cooperative or multiple client programs.

Under this relatively new approach, Leedy explained, sizeable investments in large research and development efforts are divided

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among several private enterprises who share concern for solutions to problems affecting them all.

Citing examples of new multiple client programs, he listed the following:

--Automatically Programmed Tools, (APT) $355,000, with participants consisting of 22 corporations and one government agency. The program calls for coordination of programming technology and further development of simplified computer language for numerically controlled machine tools.

--Development of Heat Check Resistant Materials, co-sponsored by 16 industrial firms.

Other new programs revealed by Leedy were:

--Brittle Fracture Program, a $300,000 extension of an Air Force Program to study brittle behavior and applicability of inorganic and non-metallic materials.

--Fire Spread Prediction System, a $400,000 U.S. government program for experimental and computer studies of fire-spread in urban areas.

--Thermally Regenerative Fuel Cell, a $130,000 extension of a U.S. Navy program to develop a compact electrical energy source for outer spaceflights, and for community and industrial applications. The cell shows promise of efficiently converting heat to electricity without recourse to a steam cycle.

-more-

-- Comprehensive Seal Study and Development, $290,000, for ultimate design of systems and components for missiles and space vehicles for U.S. Air Force.

Looking forward to an even better second half, Leedy predicted the Armour Research Foundation total for the year should exceed $20 million in research volume.

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M.T. Noar
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P.R. Leach
Wilmington, Del.
PR 4-2294

R RELEASE:

Wednesday Afternoon
March 28, 1962

A SYSTEM OF ELECTROSTATIC RECORDING

by

D. E. Richardson, J. J. Brophy and H. Seiwatz
Armour Research Foundation
Chicago 16, Illinois

and

J. E. Dickens and R. J. Kerr
Film Department
E. I. du Pont de Nemours and Company
Wilmington, Delaware

1. INTRODUCTION

Previous electrostatic recording techniques have generally employed either electrical polarization of the record medium, based on electret[1] or ferroelectric[2] properties, or surface charging of an insulator.[3,4] These methods yield electrostatic records which lack the desired permanence. A new system of electrostatic recording reported here utilizes charge penetration into an insulating recording material. Such recordings are permanent and can be replayed repeatedly.

Early experiments showed that charge injection is most advantageous when charges of equal and opposite sign are produced at points opposite one another through the tape. This is accomplished by drawing certain plastic films (i.e. Teflon FEP fluorocarbon film, Myler polyester film, and polyethylene film) between a knife edge electrode and a resilient conducting backing electrode. Bias and

-more-

signal voltages applied to the electrodes produce a charge pattern in the film corresponding to the signal which may be played back inductively by passing the film through a similar electrode structure. Most of the results reported here refer to recording systems using "Mylar" tapes 0.25 inches wide and wither 0.25 or 0.50 mils thick.

II. RECORDING TECHNIQUES

With the simple recording and playback arrangement of Fig. 1(a), little charge is injected into the moving tape until the electrode bias potential exceeds a threshold value as shown in Fig. 2. This motional tape current, which is a linear function of tape speed demonstrates that electrical charge corresponding to the electrode potential is delivered to the tape. The signal-to-noise ratio and other properties of such a recording are measurably improved by subjecting the tape to a reverse polarity pre-bias treatment with a prior knife edge and backing electrode combination. The subsequent motional tape current at the second electrode pair is labeled "-1000 volts prebias" in Fig. 2. In the absence of signal the net result of the prebias-bias treatment is an essentially neutral tape, for properly chosen values of electrode potentials. Signal voltages are applied only to the second electrode combination and result in a charge pattern interior to the tape corresponding to the applied signal. It is possible to erase this charge pattern by subsequently re-recording the tape.

Experiments have shown that maximum signal-to-voice ratio minimum playback distortion, and maximum record life are obtained when the prebias electrode current is equal to the bias electrode current, which can be realized by proper adjustment of the bias and prebias voltages according to Fig. 2. The proper division of voltages may be obtained automatically through the use of the circuit in Fig. 1(b). Here the voltage of the single bias source divides between the bias and prebias electrodes such that $I_p = I_B$ on the average while the signal voltage is effectively applied only to the bias electrodes. Representative values for the bias potential and signal level in this circuit are 1500 volts d.c. and 100 volts rms, respectively.

Playback of these electrostatic records is simply accomplished by drawing the tape between a knife edge and backing electrode combination as indicated in Fig. 1(a). Tape signal charges induce potentials on the playback electrodes which may be amplified by a conventional electronic amplifier. The magnitude of the signal depends upon the load resistance R_L and is of the order of 40 millivolts for $R_L = 10^6$ ohms. Typical playback frequency response spectra and wideband noise levels are shown in Fig. 3. In the figure the noise data points refer to wideband noise (10 cps to 20 kc bandwidth) taken immediately before and after each signal response point on adjacent regions of the tape record.

-more-

An effect similar to the bias-prebias combination in d.c. bias recording is achieved through the use of a.c. bias at a single pair of opposed knife edges, as sketched in Fig. 1(c). Recordings result which have a larger signal-to-noise ratio than for d.c. bias, as indicated in Fig. 4. Present results also indicate less second distortion in the case of a.c. bias.

III. ION NEUTRALIZATION

The recorded tape is treated with an atmospheric ion bath prior to spooling after recording and after each playback. This ion neutralization treatment improves recording permanence, greatly reduces layer-to-layer print-through during storage. Present evidence indicates that the function of these ions is to neutralize uncompensated charge on the tape. The ion bath is produced by a high voltage corona discharge from pointed electrodes located between the recording electrodes and the take-up spool as indicated in Fig. 1(b). A similar ion source between the feed reel and the electrodes may also be employed, but is often unnecessary. The ion bath neutralizes net charge on the record medium produced by triboelectric charging or the recording process and is applied each time the tape passes through the electrodes.

IV. NOISE

Noise in the electrostatic recording system is due to random electrical charge patterns in the tape and to recorded noise produced by the recording process. The playback noise spectrum of virgin tape, Fig. 5, indicates a very large low frequency component, presumably the result of triboelectric charging during handling and spooling. This is greatly reduced by ion neutralization as also shown in Fig. 5. The noise spectra of neutralized tapes are quite reproductible and may be interpreted in terms of a stable random array of charged spots produced by air breakdown at the tape surface because of triboelectric charging. This charge pattern is altered by the application of bias and prebias voltages as indicated by the third spectrum of Fig. 5.

The recorded noise spectrum also can be analyzed in terms of a random array of (much smaller) charged spots produced by the recording process. These spots are in agreement with the observed spark-like character of the gas discharge at the electrodes during recording. The total wideband recorded noise level is greater than that of neutralized tape, although, as the spectra indicate, disagreeable low frequency rumble is much reduced. Therefore, d.c. electrostatic recordings are recording-noise limited with regard to

signal-to-noise ratio. Under a.c. bias the character of the recording discharge is such that the spark-like character is reduced and the signal-to-noise ratio is improved as implied in Fig. 4.

V. RESOLUTION

The linear resolution of electrostatic records is influenced by the effective electrical width of the electrodes on both recording and playback. It is possible to analyze response curves such as in Figs. 3 or 4 in terms of an effective electrode width quite satisfactorily. A minimum wavelength of the order of 0.7 mil is obtained for the simple knife edge playback electrode.

Playback resolution can be improved through the use of a shielded blade electrode construction in which a center pick-up electrode is shielded on each side by a close-fitting electrostatic shield. This configuration restricts the region of tape effective in inducing signals on the active electrode and results in a playback electrode having a resolution equivalent to the distance between the shields. In application it is convenient to electrically drive the shields through the use of a cathode-follower input stage in order to reduce the capacitive loading effect of the shields. The improved resolution obtainable is indicated by the curves of Fig. 6 which were taken under identical conditions except for the size of the electrode gap between the shields.

Resolution limitation in recording appears to be associated with the gas discharge at the recording electrodes. The finite size of the charged spots produced in d.c. bias recording and the spread of the discharge away from the knife edge tend to introduce a minimum wavelength. In the latter regard, change in the ambient atmosphere is known to influence resolution to some extent.

VI. RECORDING LIFE

One of the outstanding features of this new electrostatic recording system is the long record life, which is attributed to the particular charge distribution produced in the tape by the recording process. Typical signal and noise decay characteristics are shown in Fig. 7 for a tape stored under room ambient conditions. For a period of time following recording, the signal and noise decay together, preserving the signal-to-noise ratio, while longer storage increases the noise somewhat, possibly due to a noise print-through effect. The signal decay may be reasonably represented by a power law as shown on the curve with an exponent of 0.3. Values of this exponent as large as 0.7 have been observed for recording prepared under non-ideal conditions, for example when bias and prebias currents are not equal.

-more-

Tapes stored under low relative humidity conditions have even longer lifetimes than indicated in Fig. 7. At low humidity, exponents as small as 0.07 are observed. The life of such recordings is clearly of the order of hundreds of years. The other aspect of record life, multiple playback, appears to be affected by the ion treatment. Recordings given a suitable neutralization treatment can be played back hundreds of times with relatively small diminution of signal.

VIII. SUMMARY

Based on these results it appears that the new electrostatic recording system derives its performance characteristics from the specific charge distribution pattern produced in the record medium by the recording process. The effect of ion treatment is to help preserve this pattern through neutralization of net surface charge produced by triboelectricity. The recording noise limitation on signal-to-noise ratio in d.c. recording may be removed by a.c. bias. Linear resolution on the record is a function of both recording and playback processes but the limitation due to the latter may be largely eliminated by the proper electrode configuration. Excellent signal life, both with respect to storage time and multiple playback, are attainable. Further improvements in the system performance will result from a detailed understanding and control of the gas discharge at the recording electrode.

-more-

LIST OF REFERENCES

1. R. E. Rutherford, U. S. Patent No. 1,891,780, Dec. 20, 1932.
2. C. F. Pulvari, U. S. Patent No. 2,698,928, Jan. 4, 1955.
3. F. Gray, U. S. Patent No. 2,200,741, May 14, 1940.
4. V. C. Anderson, Rev. Sci. Instr. 28, 504 (1957).

-more-

FIGURE CAPTIONS

Fig. 1. Electrostatic recording and playback circuits.

Fig. 2. Recording current characteristics for 1/4 mil thick, 1/4 inch wide "Mylar" at a tape speed of 3.75 inches per second.

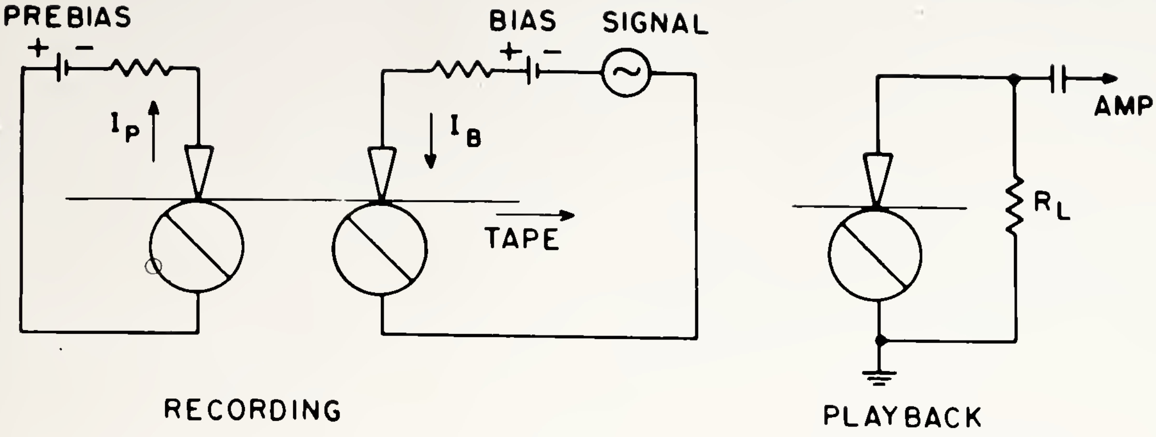
Fig. 3. Frequency response curves for d.c. bias electrostatic recording at 22 ips. Indicated noise levels are total wideband noise with bias but without signal taken immediately before and after signal response reading.

Fig. 4. Comparison of frequency response curves at 7.5 ips for various a.c. bias frequencies and for d.c. bias.

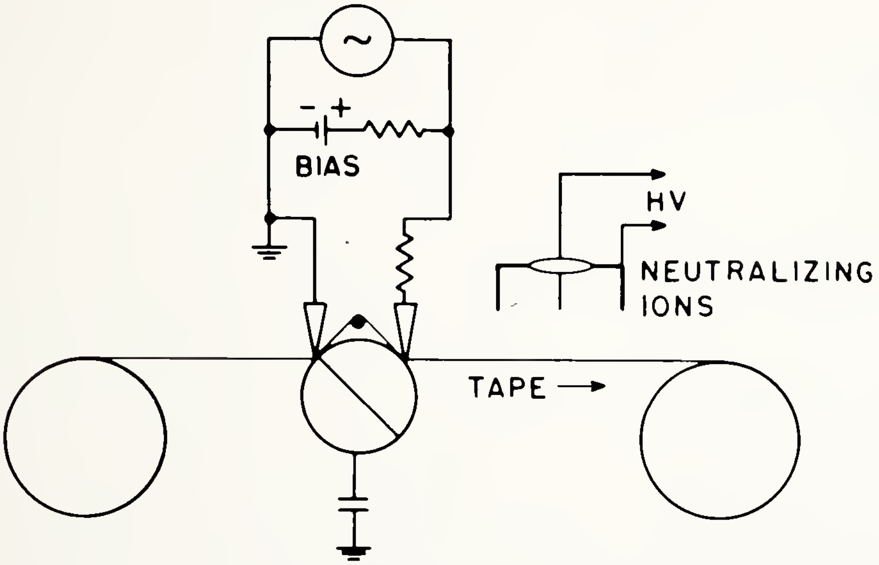
Fig. 5. Playback noise spectra at 11 ips.

Fig. 6. Representative playback frequency response curves at 7.5 ips obtained with sandwich playback electrodes having various gap widths.

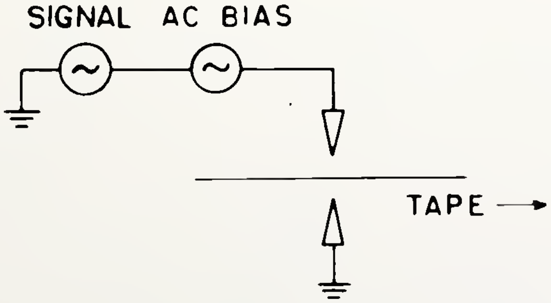
Fig. 7. Variation of signal and noise with time for "Mylar" tape stored in room ambient atmosphere.



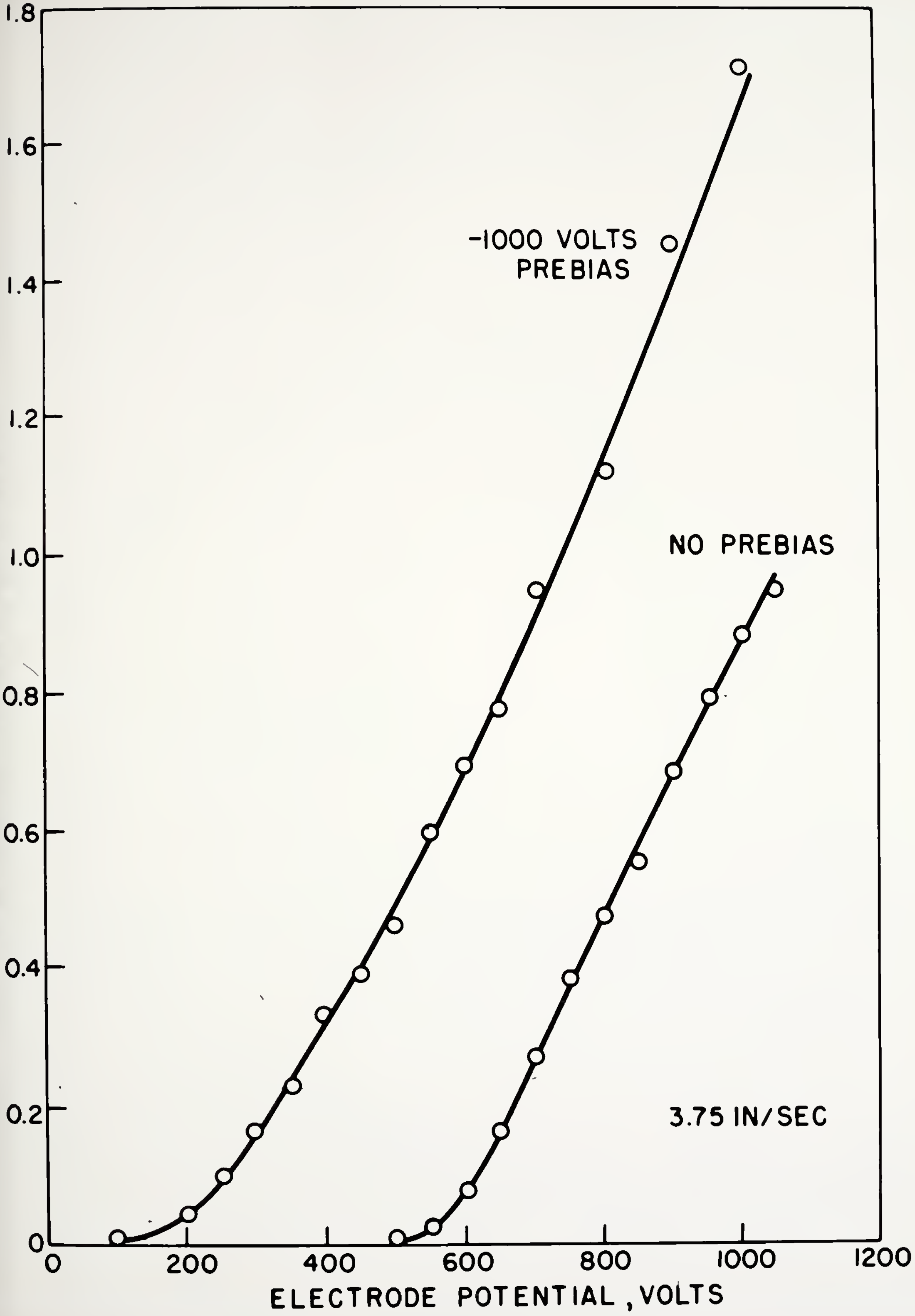
(A) ELEMENTARY RECORDING AND PLAYBACK CIRCUITS

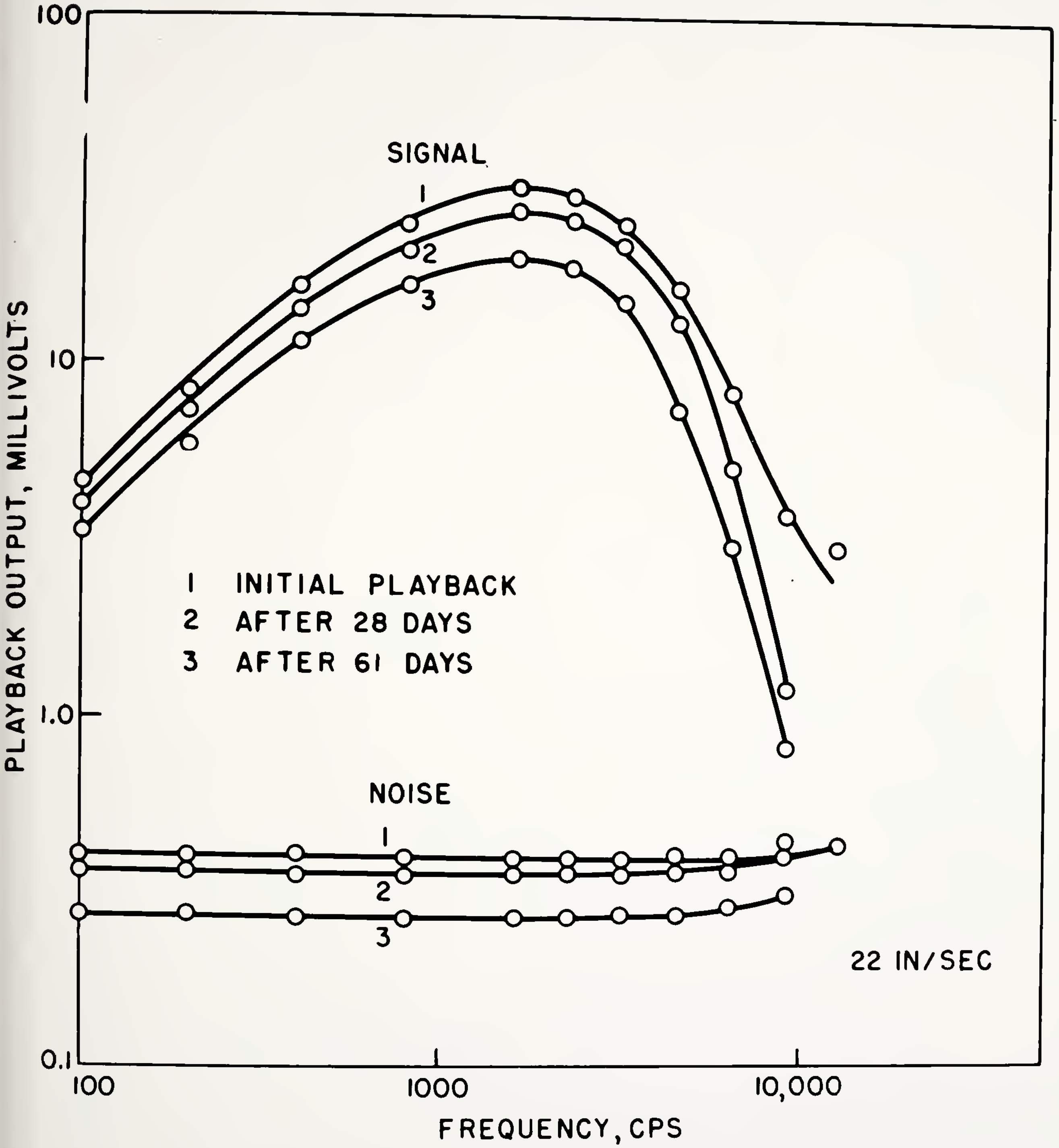


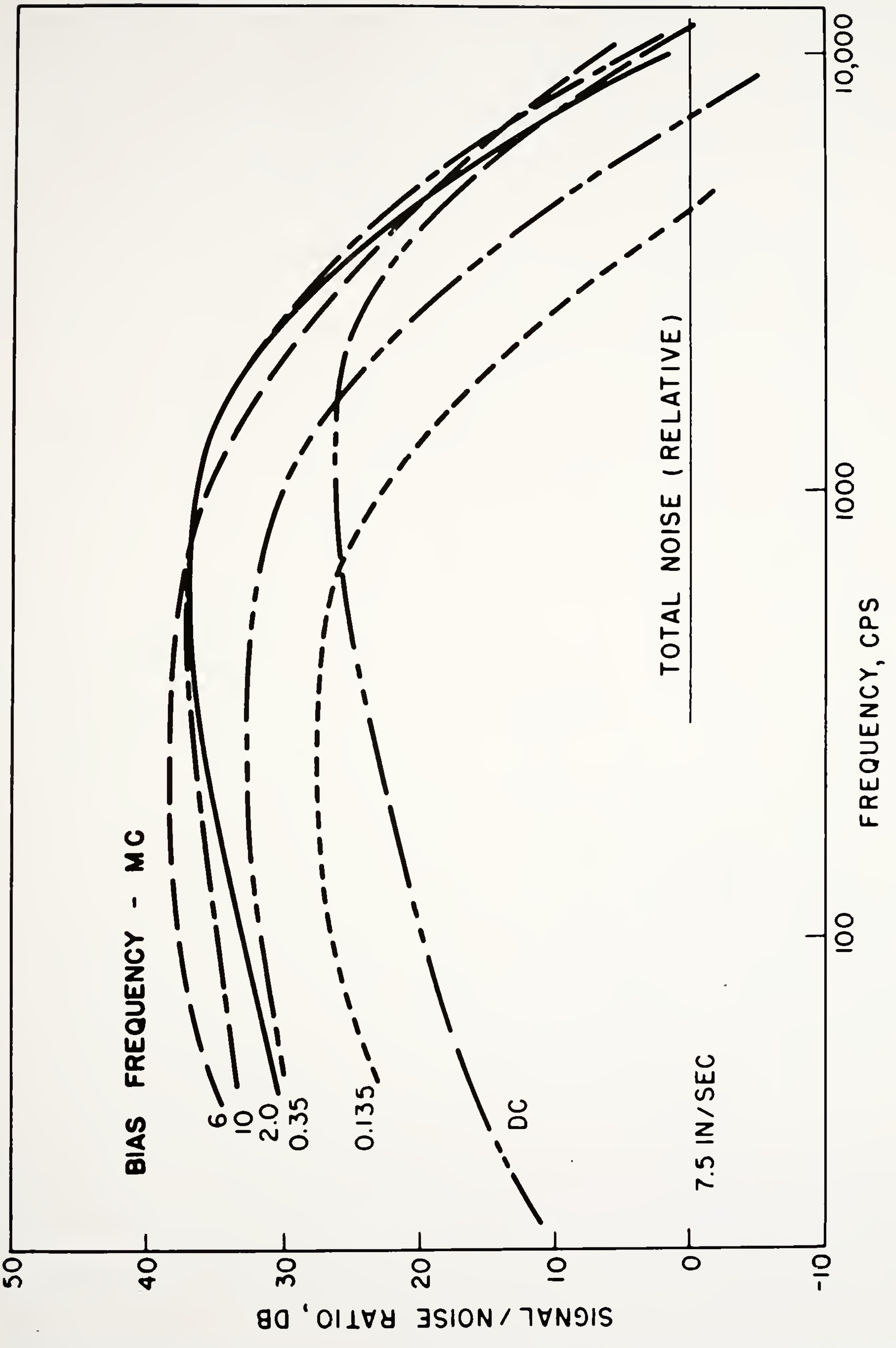
(B) RECORDING CIRCUIT FOR $I_B = I_P$, DC BIAS

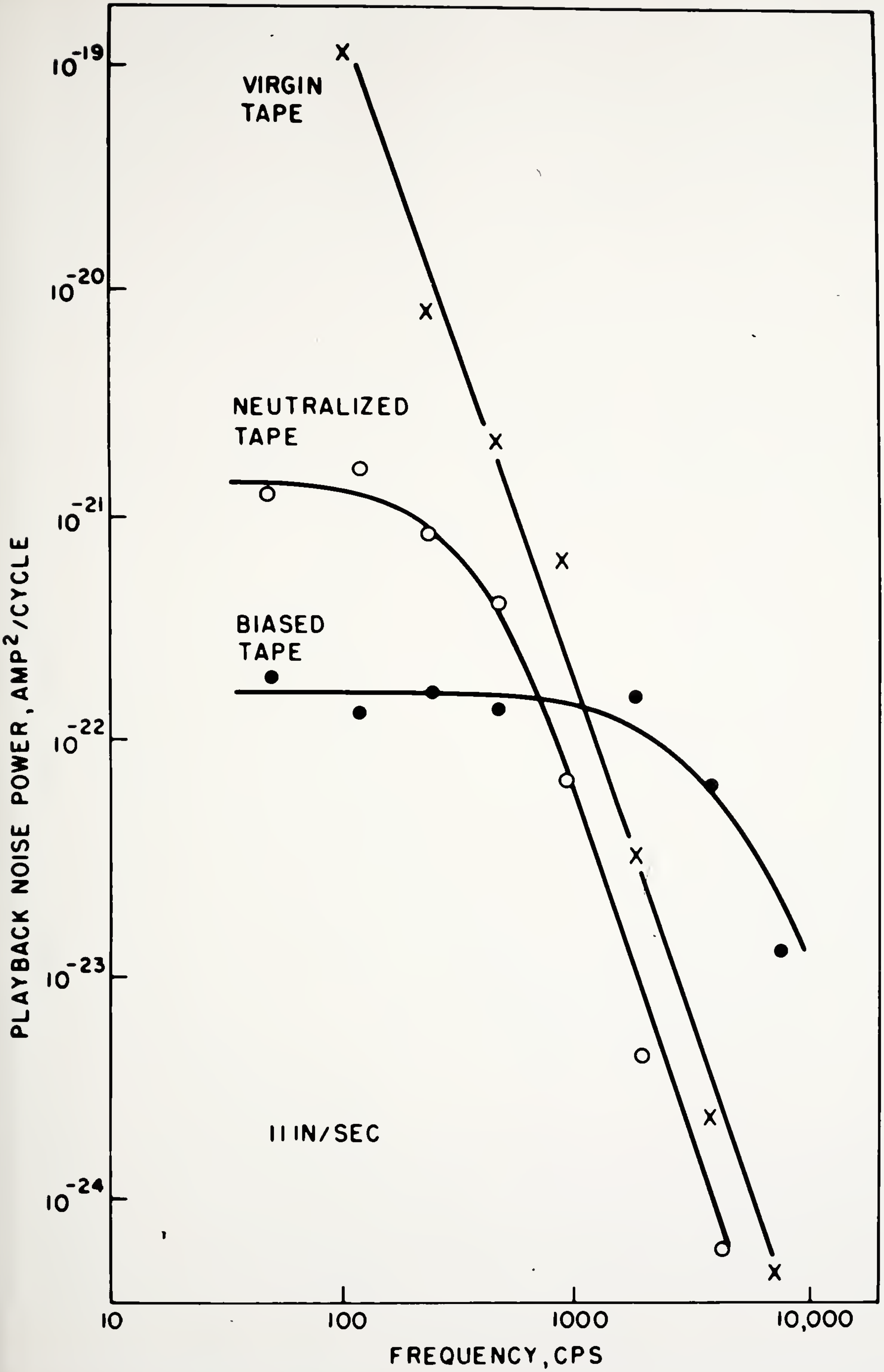


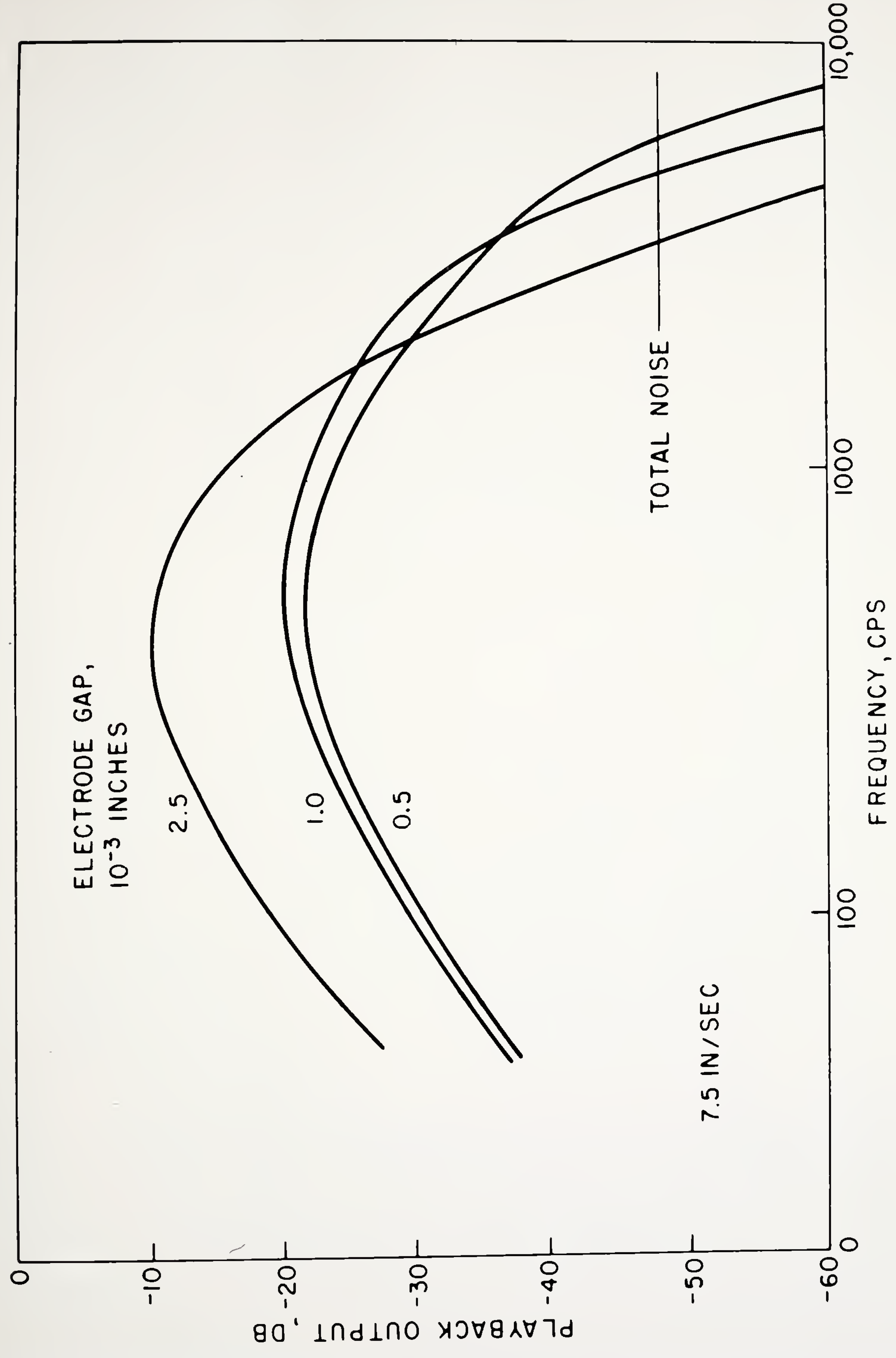
(C) RECORDING CIRCUIT FOR AC BIAS


1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0
0
200
400
600
800
1000
1200
ELECTRODE POTENTIAL, VOLTS
-1000 VOLTS
PREBIAS
NO PREBIAS
3.75 IN/SEC


SIGNAL
1
2
3
NOISE
1
2
3
1 INITIAL PLAYBACK
2 AFTER 28 DAYS
3 AFTER 61 DAYS
22 IN/SEC
PLAYBACK OUTPUT, MILLIVOLTS
100
10
1.0
0.1
100
1000
10,000
FREQUENCY, CPS


BIAS FREQUENCY - MC
6
10
2.0
0.35
0.135
DC
7.5 IN/SEC
TOTAL NOISE (RELATIVE)
SIGNAL / NOISE RATIO, DB
50
40
30
20
10
0
-10
FREQUENCY, CPS
100
1000
10,000


VIRGIN TAPE
NEUTRALIZED TAPE
BIASED TAPE
11 IN/SEC
10^{-19}
10^{-20}
10^{-21}
10^{-22}
10^{-23}
10^{-24}
PLAYBACK NOISE POWER, AMP^2/CYCLE
10
100
1000
10,000
FREQUENCY, CPS


ELECTRODE GAP,
10^{-3} INCHES
2.5
1.0
0.5
TOTAL NOISE
7.5 IN/SEC
PLAYBACK OUTPUT, DB
0
-10
-20
-30
-40
-50
-60
FREQUENCY, CPS
0
100
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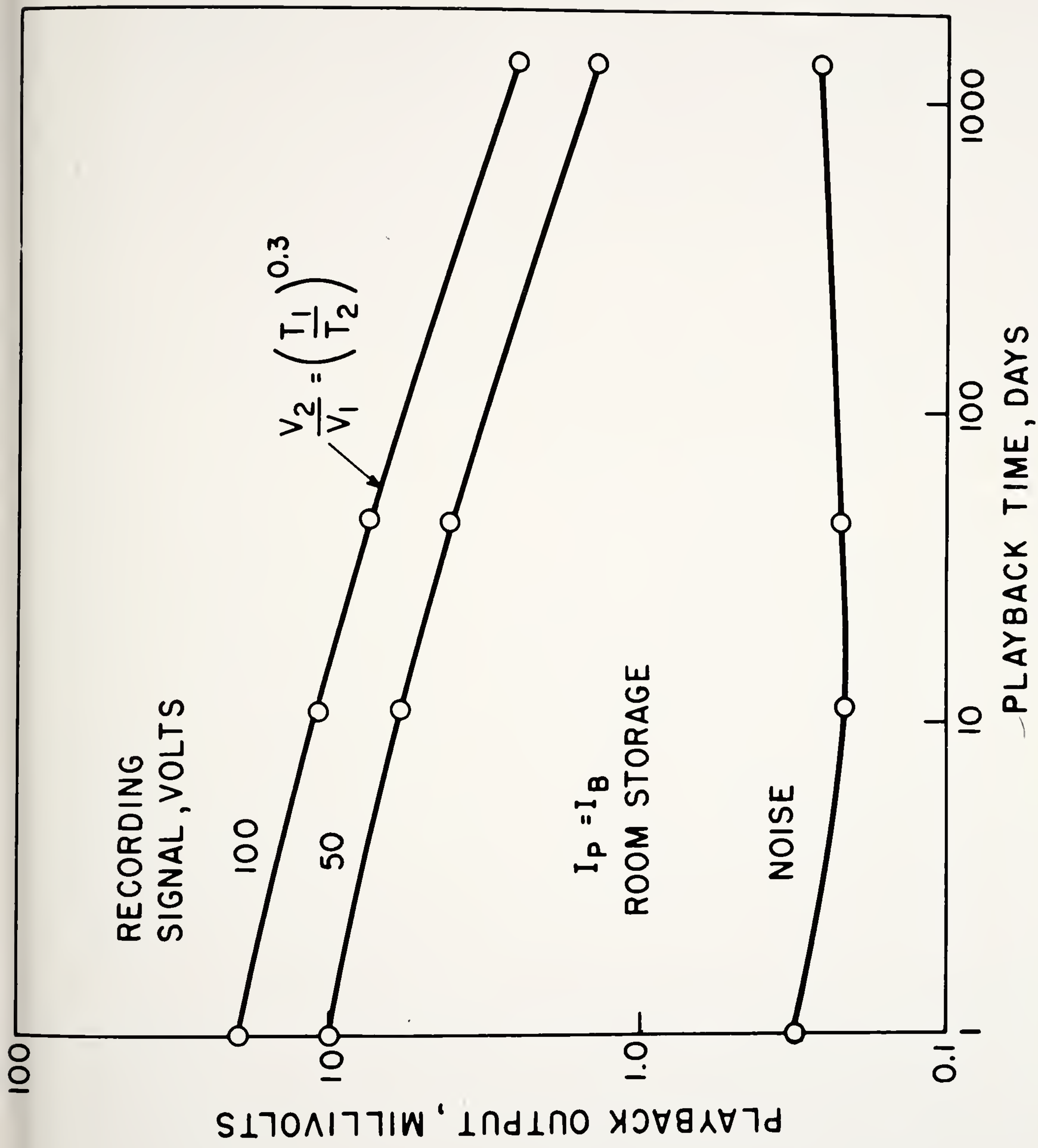
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NOISE
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PLAYBACK OUTPUT, MILLIVOLTS
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PLAYBACK TIME, DAYS

from

LLINOIS INSTITUTE OF TECHNOLOGY

35 WEST 33RD STREET TECHNOLOGY CENTER CHICAGO 16, ILLINOIS

Public Relations
Serving: Illinois Institute of Technology
Armour Research Foundation
of Illinois Institute of Technology
Institute of Gas Technology

For further information on this release, contact:

Jim Stathas
CA 5-9600, Ext. 744

R RELEASE: IMMEDIATE

March 29, 1962

CHICAGO -- A noted expert on human reactions in space flight will speak before the Illinois Institute of Technology chapter of the Society of the Sigma Xi, Tuesday, April 3, beginning at 8 p. m.

Dr. John P. Stapp, U. S. Air Force Colonel, will speak on "Problems of Manned Space Flight," recounting his experiences at the Aerospace Medical Center at Brooks Air Force Base in Texas.

Stapp was one of the first to undertake experiments evaluating human tolerance requirements and specifications for spacecraft design around the astronaut. He became well known to the public when he performed the rocket sled experiments on high deceleration, riding the sleds himself and many times suffering temporary injuries.

Stapp was born in Brazil and received his primary education from his parents. He received both his B.A. and M.A. degrees from Baylor University, and was awarded a Ph.D. in biophysics from the University of Texas in 1940. He earned his M.D. in 1944 at St. Mary's hospital in Duluth, Minn.

The lecture, open to the public, will be held in Illinois Tech's chemistry building auditorium, at 33 St. and Dearborn.

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For further information on this release, contact:
Jim Stathas
CA 5-9600 Ext 745

OR RELEASE: IMMEDIATE

April 3, 1962

FOREIGN PLAY AT IIT

CHICAGO -- A special production, in German, of Friedrich von Schiller's tragedy Kabale und Liebe, will be presented at Illinois Institute of Technology Friday, April 6, at 8:30 p.m.

Open to the public, the play will be produced by the Graduate Germanics Club of the University of Chicago, and will appear on the stage of Illinois Tech's Hermann Union auditorium, S. 33rd and Dearborn sts.

A scene-by-scene English synopsis of the play will be distributed to the audience.

Kabale und Liebe is a story of intrigue and love. The son of the president of a state falls deeply in love with a "middle-class" girl, the daughter of a music teacher. The love of the hero conflicts with the interest of the state and social standing of his family, and is eventually sacrificed to them. The tragedy, however, does not arise only from this external conflict, but from the character of the hero himself who is so blinded by his love that he is incapable of contending with the intrigues that surround him.

-more-

ADD 1 -- Foreign Play at IIT

This marks the first presentation of a foreign play on the IIT campus. The special showing is sponsored by the Illinois Tech department of language, literature and philosophy, as part of that department's current program to increase the number of cultural activities and opportunities on the campus. Admission charge is $.50.

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FOR RELEASE:

Tuesday
April 3, 1962

FROM: Armour Research Foundation
10 West 35 Street
Chicago 16, Illinois

Mike Noar
CAlumet 5-9600, Ext. 744

and

The Service Bureau Corporation
425 Park Avenue
New York 22, New York

Ray Meurer
PLaza 1-5600, Ext. 729

Chicago, Ill., Apr 3 -- Plans to expand electronic data processing facilities with the addition of an IBM 7090 computer were announced today by the Armour Research Foundation of Illinois Institute of Technology and the Service Bureau Corporation, a subsidiary of IBM. Installation will be in October of this year.

One of the most advanced scientific computers available, the 7090 along with an IBM 1401 will be added to ARF's existing digital computing equipment. "It will make the installation one of the most formidable data processing research facilities in the country," said Dr. Haldon A. Leedy, ARF director.

Under an agreement with ARF, the Service Bureau Corporation will purchase time on the 7090 and make it available to midwestern industries for the solution of scientific and engineering problems. SBC will maintain a full compliment of data processing personnel at the installation to provide custom programming services and computer processing of proprietary applications such as PERT (Program Evaluation and Review Techniques), Hydraulic Network Analysis, Survey Data Processing, and Piping Flexibility Analysis.

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ADD 1 -- ARF and SBC to Use IBM 7090 Computer.

ARF will use the 7090 for problem solving in connection with over 700 scientific research projects being carried out for both government and industry. The computer will be installed in ARF's Physics and Electronics Research Building, 3440 So. State Street.

In the Spring of 1963, the 7090 will be converted to an IBM 7094, one of the fastest and most powerful computers in the world.

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of Illinois Institute of Technology
Institute of Gas Technology

For further information on this release, contact:

Paul A. Deming
CA 9-5600, Ext. 793

R RELEASE:
IMMEDIATE

April 3, 1962

CHEMICAL COATING SOLVES SPACE-HELMET VISOR FOGGING PROBLEM

CHICAGO, ILL.--A chemical coating to keep the space-helmet visors of high flying pilots and astronauts "clear and A-okay" under extreme temperature differences has been developed by chemists at Armour Research Foundation of Illinois Institute of Technology, it was announced today.

Kurt Gutfreund, project leader, and Dr. Jacob I. Bregman, supervisor of ARF physical chemistry research, developed the anti-fog chemical solution for the Air Force's Aerospace Medical Research Laboratories located at Wright-Patterson Air Force Base, Ohio.

They say the space-helmet visor fogging problem is similar to that experienced by millions of people who wear glasses. Stepping from cold outside air into a warm humid room, spectacle wearers often find that a blinding vapor condenses on their eyeglasses.

Much the same happens to the face and eye protective equipment worn by pilots and astronauts in the cold, upper regions of

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the atmosphere and in outerspace. They can see fine as long as the aircraft cabin or space capsule is heated to approximately the same temperature as their exhaled breath. But if some technical difficulty should cause the cabin temperature to drop, the lower outside temperature quickly would cause the pilot's breath to condense on the helmet visor and obstruct his vision.

This means the pilot's vision is clouded at the very time he most needs to see what is happening. And, the chemists point out, it is quite impossible for a man in a pressurized space suit to remove his helmet and wipe the visor clear.

In essence the new ARF chemical solution counteracts visor fogging by inducing an even dispersion of water vapor over the entire surface of the visor. Consequently it prevents moisture exhaled by the pilot from collecting as tiny water droplets on the helmet visor. Fog is merely an accumulation of hundreds of such droplets.

Extensive laboratory tests involving extreme temperatures and high humidity have proved the new anti-fog chemical to be long lasting and highly effective, Bregman reported. Applied as a thin invisible coating, he said it produces no distortion, haze, or other discernible interference with the original optical properties of the visor, whether the visor is made of glass or plastic.

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It was learned that after long and repeated exposure to heavy amounts of moisture the coating eventually begins to lose its anti-fog effectiveness. However, Bregman said it also was learned the old coating could be removed and a new coating reapplied without difficulty.

The ARF researchers applied the anti-fog chemical solution to test materials by a bath, or dipping, process. But they said it could be easily adapted to spray coating.

According to Bregman and Gutfreund, government sponsors of the anti-fog chemical research project are enthusiastic over the laboratory results and preparations are underway now to test the coating during high altitude flights of the S. S. Air Force's X-15 rocket plane.

Visors currently used on space-helmets are given a micro-thin, electrically conductive coating of gold so the visors can be electrically heated to reduce condensation of water vapor. However, the tint of the gold coating reduces the wearer's vision by almost 30 percent and it is costly and difficult to apply.

Besides keeping space-helmets clear of fog at high altitudes and in space, the ARF developers believe their new anti-fog solution will have many useful applications on the ground.

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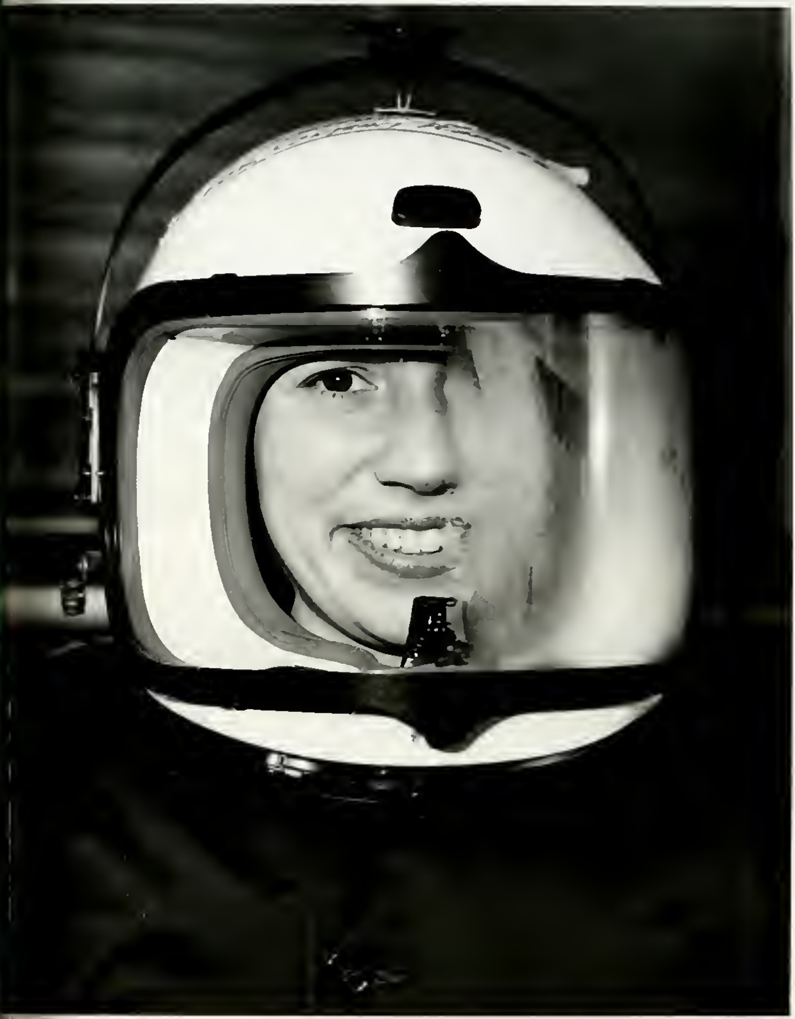
number of professional organizations, including the American Institute of Certified Public Accountants.



A half-and-half demonstration inside a laboratory cold room shows the effectiveness of a new chemical solution to eliminate visor fogging in space-helmets worn by U. S. Air Force pilots and astronauts. The clear half of the visor is coated with the anti-fog solution developed by chemists of Armour Research Foundation, the clouded side was not.

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For further information on this release, contact:
James Stathas
Calumet 5-9600, Ext 745

April 6, 1962

R RELEASE:
IMMEDIATE

CHICAGO -- Robert H. Jarrell has been named business manager and assistant secretary of Illinois Institute of Technology, it was announced today by Dr. John T. Rettaliata, president.

Jarrell succeeds Melvin T. Tracht, who has been associated with IIT since 1941, and was recently appointed business manager and treasurer of Roosevelt University.

Illinois Tech's new business manager joined the institute in 1950, and has been comptroller since 1957. A 1946 graduate of the University of Illinois, Jarrell was internal auditor for the Illinois Farm Supply co. from 1946 to 1950.

Jarrell, his wife and three children reside at 719 Brainard st., Naperville. He is a member of the Naperville Junior Chamber of Commerce, the Controllers Institute of America, and the Central Association of College and University Business Officers.

Succeeding Jarrell as comptroller and assistant treasurer will be Robert W. Eklund, who formerly was assistant controller of Illinois Tech's research affiliate, Armour Research Foundation. He received a BSBA degree from Northwestern University's school of business, and obtained his MSBA degree from the University of Chicago.

Eklund, who resides at 2625 W. Berwyn ave., is a member of a number of professional organizations, including the American Institute of Certified Public Accountants.

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For further information on this release, contact:

M. T. Noar
CA. 5-9600, Ext. 744

R RELEASE:

HOLD FOR RELEASE
12 Noon CST
Monday, April 9, 1962

Chicago, Ill., Apr 9 -- A record increase in faculty salaries, averaging 10 percent for the 1962-63 academic year, was announced today by the Illinois Institute of Technology.

Reporting the final action of the Board of Trustees, Dr. John T. Rettaliata, Illinois Tech president, described the increase, largest in the school's 70 year history, as a recognition of the vital role high quality educators perform in maintaining the high standards of the nation's technological institutions.

In a tribute to the faculty members of I.I.T., Rettaliata depicted science and engineering educators as a prime reason for confidence in a growing America. For it is through their knowledge and their guidance of our young people, he asserted, that we are sowing the seeds today for America's cultural and technological growth of tomorrow.

Commenting on the significance of the 10 percent faculty salary increase, Rettaliata said that it substantially exceeds the national average in higher education which has been about 6 percent annually for the past several years.

Reflecting the Board of Trustees' confidence in the future, Lester Armour, Chairman, (Vice Chairman, Harris Trust and Savings Bank)

-more-

cited the need for the Illinois Institute of Technology to live up to its increasing responsibility as an educational leader of science, technology and management in the Midwest.

"Traditionally both the East Coast and West Coast have enjoyed such leadership in institutions like MIT and Cal Tech. As a result, those areas have experienced an appreciable build-up in technology and scientific research.

"With this new budget and the long-range planning now going on at IIT, I am confident that the Illinois Institute of Technology will provide its share of the educational and research leadership which Chicago and the Midwest need to forge ahead in scientific, technological and management functions," Armour concluded.

Reporting other actions taken by the Board, Rettaliata disclosed IIT's new tuition figure of $1,200 for the coming academic year. This represents a $75 increase per semester in all divisions except the Division of Liberal Studies, where it represents a $100 raise per semester.

At the same time, Rettaliata pointed out, the Board guaranteed that there will be no further tuition increase through the 1963-64 academic year.

Citing the ever-increasing obligations on the part of technological institutions to provide the nation with high calibre scientists, engineers, and management personnel, Rettaliata announced that IIT is "determined to invest heavily in its instructional program to carry out this objective."

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"In addition to the procurement of the finest in equipment and instructional facilities, Illinois Tech plans to increase the number of full-time instructors in its Evening Division," he said.

Predicting total expenditures for Technology Center for the next fiscal year, Rettaliata said the anticipated operating budgets should exceed $33 million, a 20 percent increase over the current fiscal year. Technology Center consists of the Illinois Institute of Technology and its affiliates, the Armour Research Foundation and the Institute of Gas Technology. The John Crerar Library and the Association of American Railroads are also located on the IIT campus.

The $33 million figure ranks the Illinois Institute of Technology third in the nation in combined expenditures for education and scientific research among all private independent technological institutions, inclusive of their respective research organizations. According to Rettaliata, only MIT and Cal Tech exceed this volume.

The operating budget of IIT alone will comprise $9 million of the record Technology Center budget, Rettaliata said. This figure is a 14 percent increase over the previous year and reflects a 19.5 percent rise in faculty salary expenditures due to additions to the staff and the afore-mentioned 10% increase.

Total instructional expenses for the coming year will be increased by 41%. This combined with the increased faculty salaries, accounts for a total teaching budget increase of 21.6 percent over last year.

It is interesting to note, Rettaliata pointed out, that the total income from the tuition increase will cover only 53 percent of

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the increase in instructional costs. It will cover only 27.1 percent of the total budget increase for the next year. Less than $300,000 additional income is anticipated from the increased tuition, while the total budget increase will exceed one million dollars.

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For further information on this release, contact:

Jim Stathas
CAlumet 5-9600, Ext 745

FOR RELEASE: IMMEDIATE

April 12, 1962

CHICAGO -- Dr. Maurice J. Zucrow, Atkins professor of engineering at Purdue University, will speak on "Space Propulsion Engines--Their Characteristics and Research Problems," at Illinois Institute of Technology Tuesday, April 17.

He will address the Illinois Tech chapter of The Society of the Sigma Xi in IIT's Chemistry auditorium, 3255 S. Dearborn, beginning at 8 P. M. The lecture is open to the public.

Zucrow will discuss propulsion and fuel requirements necessary for specific space missions.

As national Sigma Xi lecturer, Zucrow will speak at universities throughout the midwest during April.

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For further information on this release, contact:

Jim Stathas
CAlumet 5-9600 Ext 745

OR RELEASE: IMMEDIATE

April 12, 1962

CHICAGO -- A nation-wide 24 hour telephone hookup will emanate from Illinois Institute of Technology Saturday, April 14, commemorating the founding day of the Triangle national fraternity.

The hookup will extend from UCLA to Cornell University, and will reach 20 stations comprised of various Triangle chapters and alumni associations. The national fraternity was founded April 15, 1907.

From 8 A. M. Saturday to 8 A. M. Sunday, loud speakers in the fraternity houses across the country will carry the program made up of discussions and speeches by national officers and other speakers to fraternity members.

Keynote speaker will be Maynard Venema, chairman of the board of Universal Oil Products, and a 1932 graduate of Illinois Tech. Charles Elliott, a 1958 graduate of IIT and president of the Illinois Tech Alumni Board, will emcee the program from the local chapter's house, 3360 S. Michigan Ave.

The various houses on the hookup are now filled with electronic equipment to broadcast and record the program.

The IIT chapter was formed May 26, 1923.

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For further information on this release, contact:

Conrad E. Locander
CAlumet 5-9600, Ext 745

R RELEASE: IMMEDIATE

April 14, 1962

CHICAGO, ILL -- Nearly 850 South Suburban grade school and high school students participated in competitions at a Science Fair, Saturday, April 14, at Illinois Institute of Technology.

Ranging in age from sixth graders to high school seniors, the youths competed for honors and a chance to represent their school in a statewide competition to be held in Urbana-Champaign, Illinois, later this year.

Displays in every field of science, from archeology to zoology, were set up in buildings on the IIT campus for judging by three-member teams. Each team consisted of a high school teacher, an industrialist, and a college representative from the Chicagoland area.

The competition, an annual event, is sponsored by the Illinois Junior Academy of Science and Illinois Institute of Technology.

According to Dr. Leslie R. Hedrick, chairman of the Biology Department at Illinois Tech, the Fair proved to be a valuable way of introducing students to the study of science with the hope that they become interested in making it a career.

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"It's time we were giving science students the same opportunities they can get in other areas of education." Hedrick said.

The competition was initiated among member schools of the South Suburban District, where science teachers selected the best two per cent of the student exhibits in their class for entry into the South Suburban District Competition. Entrants from each school then competed Saturday for District honors and winners from each of the 10 districts will participate in statewide competition later this year at the University of Illinois.

Each student was required to submit a paper, covering the field of study, along with his display. Exhibits were judged on the basis of scientific worth, originality, accuracy of information, effectiveness of presentation, thoroughness, and difficulty and comprehension.

The statewide competition will feature the outstanding works of students from the 10 districts in the state.

A listing of schools participating in the South Suburban District follows:

Argo Community High School
Bloom Twp. High School
Blue Island Comm. H. S.
Bremen Comm. H. S.
Burnham Jr. High
Calvin Coolidge School
Cossitt Ave. Jr. H. S.
Crete-Monee H. S.
Downers Grove Comm. H. S.
Drexel School
Eisenhower School
Emerson
Evergreen Pk. Comm. H. S.
Fenton H. S.
Henry Ford II Jr. H. S.
Forest Road School
Glenbard East H. S.
Glen Ellyn Jr. H. S.

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Glenbard West H. S.
Gompers Jr. H. S.
Gurrie Central Jr. H. S.
Highlands Jr. H. S.
Jefferson Jr. H. S.
Lemont Twp. H. S.
Lincoln Jr. H. S.
Lindop Jr. H. S.
Lyons Twp. H. S. North
Marian H. S.
Midlothian Jr. H. S.
Morton West H. S.
Nazareth Academy
O'Neill Jr. H. S.
Palos East
Proviso East H. S.
Puffer School
Riverside-Brookfield H. S.
Sacred Heart H. S.
St. John's Lutheran
Thornridge H. S.
Thornton Fractional Twp. N.
Thornton Twp. H. S.
Wheaton Christian H. S.
Weitendorf
Reavis H. S.
Goodwin
Herrick Jr. H. S.
Hinsdale Twp. H. S.
Illiana Christian H. S.
Lansing Christian
Lincoln Elem.
Lincoln-Way Comm. H. S.
Lombard Jr. H. S.
Lyons Twp. H. S. South
Memorial Jr. High
Morton East H. S.
Naperville
Oak Lawn Comm. H. S.
Palos Central
Palos West
Proviso West H. S.
Reavis School
Rich Twp. H. S.
Carl Sandburg H. S.
St. Procopius Academy
Thornton H. S.
Thornton Fractional Twp. S.
West Chicago Comm. High
Wheaton Comm. H. S.
Willowbrook H. S.
York Comm. H. S.

A special program was provided the students in the main auditorium of the new Hermann Union Building at Illinois Tech, which consisted of a short welcome by Dr. Martin A. Elliott, Academic Vice President at IIT, entertainment by IIT's Interfraternity Tech Men's Choral Group and the Illinois Tech Drama Group.

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For further information on this release, contact:

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R RELEASE: IMMEDIATE

April 18, 1962

MARCH DUSTFALL HIGHLITES

CHICAGO, ILL. -- Airborne dustfall over Chicago measured 54.0 tons per square mile for March according to measurements at Armour Research Foundation of Illinois Institute of Technology. This was 29 tons lower than dustfall readings taken in March of last year and 1.9 tons lower than readings for February of this year, Samuel Radner, Foundation specialist in fine particle control indicated.

Highest readings for the month were recorded at La Salle and Washington (100.6 tons per square mile), and Stony Island and 75 St. (83.6 tons per square mile), while lowest monthly readings were taken at 7350 Pratt Avenue (26.4 tons) and 1620 W. 99 St. (28.0 tons).

The biggest drop from readings taken last March was in the non-combustible (earthy) materials portion of the dustfall count. This fell from 43.7 tons last March to 17.7 tons this March, said Radner, who noted there was snow on the ground for 17 days this March and only two days in March of 1961. This may have reduced the wind raised dust, accounting for the decrease, he said.

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ADD 1 -- March Dustfall

CHICAGO TOTAL DUSTFALL
Trends by Station
March, 1962
Tons per Square Mile per Month

Sta. No.	Station Address	Readings in March 1962	Feb. 1962	March 1961
1	State & Adams	79.0	70.5	138.9
2	33 N. La Salle	100.6	108.6	210.8
	Loop Average	89.8	89.5	174.8
3	2135 S. Michigan		60.3	77.9
4	825 E. 44	41.0	73.4	78.0
5	1362 E. 59	37.1	48.6	56.1
6	7351 Stony Island	83.6	84.8	202.0
7	67 W. 113 Place	58.0	61.4	66.9
8	8858 Marquette	76.5	137.4	
9	3105 W. 63	55.6	51.5	29.9
10	6140 S. Melvina	54.7	41.9	85.7
11	7559 Eggleston	42.8	46.5	39.6
12	1620 W. 99	28.0	31.5	35.3
13	3608 Ogden	42.8	53.0	45.7
14	1500 W. Monroe	59.5	52.5	82.8
15	5055 Fulton	61.5	51.1	86.4
16	2940 W. Cortland	49.8	41.5	125.6
17	5602 Belden	39.3	43.0	51.0
18	3944 N. Sawyer	42.8	31.9	73.5
19	7350 Pratt	26.4	29.5	43.5
20	54 W. Hubbard	75.1	88.7	107.5
21	551 Grant Place	51.1	36.0	60.0
22	3532 Sheffield	70.7	21.5	98.7
23	1622 Pratt Blvd.	37.8	53.6	53.4
25	2240 W. 37	63.3	57.4	62.9
Average (incl. Loop Average)		54.0	55.9	79.0

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For further information on this release, contact:

James Stathas
CAlumet 5-9600, Ext 745

RELEASE:

MEMO TO:
DRAMA CRITICS, COLUMNISTS,
FUTURE EVENTS EDITORS

April 19, 1962

Illinois Institute of Technology will present three Shakespearean plays this summer. Called "Shakespeare in the Center," the productions will be presented in the auditorium of the new Herman Hall union building on the IIT campus.

Cost of general admission tickets will be $1.75, and season tickets $4.00. The schedule follows:

Comedy of Errors: July 6, 7, 8, 13, 14, 15

Much Ado About Nothing: July 20, 21, 22, 27, 28, 29

A Winter's Tale: August 3, 4, 5, 10, 11, 12

CURTAIN TIME -- Fridays and Saturdays, 8:30 p.m.
Sundays, 7:30 p.m.

Ticket information may be obtained after June 1 by calling: Calumet 5-9600, ext. 2787, or by writing Mr. Harvey Landa, Illinois Institute of Technology, Chicago 16.

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For further information on this release, contact:

James Stathas
CAlumet 5-9600, Ext 745

RELEASE: IMMEDIATE

April 20, 1962

CHICAGO -- More than 100 high school seniors are expected to be guests of Illinois Institute of Technology during its Interfraternity Open House for potential students, April 27, 28, 29.

Visiting students will be provided with meals and on-campus housing during the three-day period in IIT's nine new fraternity houses.

Schedule for the open house includes panel discussions presented by IIT students and faculty members according to the visiting students' fields of interest, social hours in fraternity or sorority houses, campus tours, and other activities including a dinner with talks presented by Dr. Martin A. Elliott, academic vice president, and "Sonny" Weissman, Illinois Tech's athletic director.

The weekend at IIT is sponsored by Illinois Tech's Interfraternity Council.

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Jim Stathas
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R RELEASE:

IMMEDIATE

April 25, 1962

CHICAGO -- James D. Mooney Jr., has been named manager of International Operations at the Armour Research Foundation of Illinois Institute of Technology, it was announced by Dr. Haldon A. Leedy, director.

He succeeds Paul Gollong, who was recently appointed international sales administrator for Boeing Aircraft.

Prior to joining Armour, Mooney was an investment advisor with the Andrew G. Doukas Co., New York. Before that, he managed his own international consulting firm and was also a member of U.S. Steel's export division.

Armour's international activities include establishing scientific research institutes in foreign nations; providing broad economic planning programs for foreign nations and for underdeveloped areas of the United States; and through its Netherlands office, helps U.S. industries keep abreast of latest European developments in technology, business, and marketing.

Mooney will be in charge of expanding ARF's International Operations into the areas of helping U.S. industries establish foreign operations, and helping U.S. small businesses to penetrate the field of foreign exports.

-more-

ADD 1 - Mooney Appointment

Mooney served as a U.S. Navy fighter pilot during World War II, and as a management engineering officer during the Korean conflict. He received a BS degree in mechanical engineering from Princeton University, and also did graduate work in industrial engineering at Princeton.

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R RELEASE:

IMMEDIATE

April 25, 1962

CHICAGO -- James L. Edman, technical director of the West Coast Office of Bendix Products Aerospace Division, has been appointed manager of West Coast operations for the Armour Research Foundation of Illinois Institute of Technology.

Edman's appointment to the newly created post marks the first official representation for the Chicago-based Foundation in the West Coast marketing area, according to Dr. James L. Wyatt, vice-president for program development.

In making the announcement, Wyatt also indicated that ARF plans to open a West Coast base of operations in the near future, probably in the Los Angeles area.

In his new capacity, Edman will serve as technical liaison with West Coast clients of the Foundation, which conducts both fundamental and applied research and development for industrial and government sponsors.

With the Bendix Corp. since 1952, Edman, in addition to his post as technical director, also served as chief engineer in rocket propulsion equipment and program manager for the systems development section.

-more-

ADD 1 --Edman appointment

Prior to Bendix, he was an instructor in the department of Engineering Mechanics at the University of Michigan.

A native of Michigan, Edman received both his BS and MS degrees in Engineering Mechanics from the University of Michigan, and has completed most of the requirements for the PhD degree. He was selected "man of the year" by the Ann Arbor Junior Chamber of Commerce in 1951.

A member of the American Rocket Society, the Institute of Aerospace Sciences, and the Society of Automotive Engineers, Edman has published numerous technical papers.

Edman, his wife Margie, and their three children reside at 3531 El Caminito in La Crescenta, Cal.

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R RELEASE:

IMMEDIATE

April 27, 1962

CHICAGO, ILL., -- More than 1,000 parents, students and faculty members are expected to attend the largest Parents' day in the history of the Illinois Institute of Technology on Sunday, May 6th. The record figure is more than twice the attendance of any previous Parents' Day, according to Dr. Thomas Hogan, IIT dean of students.

Conducted each year to acquaint parents with the latest developments in the Illinois Tech program, Parents' Day this year will be held in the school's new $3,000,000 Hermann Union Building at Dearborn and 33rd St.

With Dr. John T. Rettaliata, IIT president, presiding as host, parents will witness the presentation of awards to the IIT Student Man and Woman of the Year. The presentations will be made by Don Wanke, president of the Illinois Tech Student Association.

In a faculty forum from 2:15 to 2:45, Dr. Peter Chiarulli, chairman of the Mechanics Department and Dr. Henry Knepler, acting chairman of the Language, Literature, and Philosophy Department will consider the questions of Science and Technology's Impact Upon Us and The Unity of Culture in a Technological Society, respectively.

Parents will have the opportunity to meet the faculty at the departmental Parent-Faculty gathering from 2:45 to 3:30 and to have their questions answered afterwards in a student-staff-faculty panel discussion.

-more-

The meeting will move to the IIT athletic field at 4:00 to watch a military review presented by the Naval Reserve Officers Training Corps and the Air Force Reserve Officers Training Corps.

A buffet supper, followed by selections by the male chorus, Tech Men, will conclude the afternoon.

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R RELEASE:

IMMEDIATE

April 27, 1962

CHICAGO -- Members of the Illinois Institute of Technology Woman's Club will meet for their annual spring luncheon Wednesday, May 2, at 1:15 p.m., in Illinois Tech's Herman Hall union building.

Mrs. George Beadle, wife of the president of the University of Chicago, and author of These Ruins Are Inhabited, will address the group. Mrs. Beadle will tell of her experiences in England where she lived while her husband attended Oxford University.

Mrs. John W. Buttrey (1821 Driving Pk., Wheaton), social chairman, is in charge of arrangements. Mrs. Elmer H. Schulz (308 S. Park Rd., La Grange) is completing her first year as president of the IIT organization.

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RELEASE: IMMEDIATE

April 27, 1962

CHICAGO -- Max R. Schrayer, Chicago insurance executive, will be the main speaker at Illinois Institute of Technology's annual alumni fund kick-off dinner for fund workers, May 2.

The dinner marks the beginning of personal solicitation in the corporate-alumnus division of the 1962 IIT alumni fund. The event will begin at 6:30 p.m. in the Ballroom of Hermann Hall, Illinois Tech's new $3 million union building. More than 200 fund representatives and their wives are expected to attend.

Dr. John T. Rettaliata, IIT president, will also be a featured speaker.

The fund representatives will personally contact fellow alumni working in approximately 300 firms in the Chicago area.

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RELEASE: IMMEDIATE

May 2, 1962

Tech Tennis Squad to Play at Grant Park

Illinois Tech's tennis squad will travel to the Grant Park Tennis Courts, home court of Roosevelt University, to meet Roosevelt for the second time this season Friday, May 4. In its last contest, IIT trounced Roosevelt 8-1, winning all but the sixth singles match.

Outstanding on Illinois Tech's squad has been number one singles man Bob Golton. Golton has steadily improved since suffering his only loss of the season to DePaul in the season's opener.

IIT coach Harry Ault believes that Golton will be the man to beat for the number one singles in the coming Chicago Intercollegiate Match, to be held at the University of Chicago starting on May 11.

Illinois Tech will carry a 2-4 record into Friday's match.

Illinois Tech Nine to Meet Lewis

On Saturday, May 5, Loras College of Dubuque, Ia., travels to Illinois Institute of Technology's diamond for a single game at 2 p.m. Last season Loras swept a double-header from IIT in Dubuque.

-more-

Illinois Tech to Hold Track Meet

On Saturday, May 5, at 10:30 a.m., Illinois Tech will hold its third home meet of the season, hosting the Lewis College and Wright Junior College track squads. IIT won over Lewis in a triangular meet two weeks ago. Wright is a newcomer to the Tech schedule.

IIT was beaten by DePaul University in its last meet. Although Illinois Tech won the sprints and most of the field events, DePaul had too much power in the distance contests. In the 440, 880, mile, and two mile, IIT took only two 3rd places. Tech sprinter Jack Novosel, undefeated this season in the 100 and 220 dashes, broke the school record of 9.9 seconds for the 100 with a 9.8 effort. Junior Larry Bacon, although only out for the last two weeks, took first in the shot and second in the javelin. Freshman broad-jumper George Huxhold edged out his previously unbeaten teammate Don Hervey with a 20'10" jump.

The IIT squad is preparing for the coming Chicago Independent Schools Relays to be held at Concordia College on May 19.

IIT Golf Team to Travel to Lewis

On May 11, the Illinois Tech golf team will travel to Joliet Country Club in Joliet to take on host Lewis College. Tech, who beat Lewis 18-6 already this season, has a 2-4-1 record for the year.

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R RELEASE:

IMMEDIATE

May 4, 1962

CHICAGO, Ill., The National Cancer Institute of the National Institutes of Health has awarded a Special Postdoctoral Fellowship for a year of research at Cambridge University, England, to Dr. Robert Filler, Associate Professor of Chemistry at Illinois Institute of Technology.

At Cambridge, Dr. Filler will continue his investigations into an area related to cancer research,"Chemistry and Toxic Action of Monofluoro Aliphatic Alpha Amino Acids". Investigation into the toxicity of these compounds may lead to a better understanding of growth processes within animal organisms.

National Institutes of Health Special grants, recommended by reviewing boards and approved by the Surgeon General, head of U.S. Public Health, are the highest level postdoctoral fellowship; only those who have demonstrated substantial research accomplishment beyond the postdoctoral level are eligible. These research grants are made available specifically for people making contributions to the field of health. Last year 280 awards were made nationally, primarily within the medical fields.

Dr. Filler was graduated from City College, N.Y., earned both his MS and PhD from the State University of Iowa.

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Before joining the Illinois Institute of Technology Chemistry Department, Dr. Filler was a research chemist at Wright Air Development Center, Dayton, Ohio, and Assistant Professor at Ohio Wesleyan University. He is a member of the American Association of University Professors, the American Chemical Society, and the Chemical Society (London).

His publications include work on fluorine chemistry and the chemistry of amino acids in the Journal of the American Chemical Society and the Journal of Organic Chemistry.

Dr. Filler will leave for Cambridge in September accompanied by his wife and four children.

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RELEASE: IMMEDIATE

May 4, 1962

CHICAGO -- Dr. John J. Gilman, engineering professor at Brown University, will receive the 1962 Distinguished Service Award of the Illinois Institute of Technology Alumni Association, during its annual Alumni Reunion Dinner, May 18.

Gilman is a 1946 metallurgical engineering graduate of IIT. The award is made each year to an alumnus for exceptional scientific contributions.

Arthur H. Jens, vice president-elect of the alumni association, an active participant in many alumni activities, will receive the association's Service Award for his "ability, service and leadership rendered to the association and to Illinois Tech," according to A. J. Platt, president of the association.

Jens is manager of the Chicago branch office of the Fund Insurance Companies.

The dinner will be held in Illinois Tech's new $3 million union building, Grover M. Hermann Hall, beginning at 6:30 p.m.

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R RELEASE: IMMEDIATE

May 7, 1962

CHICAGO -- This May marks the 10th anniversary of the first periodical publication in the world written in Interlingua, a universal language.

The first issue of "Spectroscopia Molecular" was written and circulated in May, 1952, by Dr. Forrest Cleveland, a professor of physics at Illinois Institute of Technology.

Because of the success of his publication, Cleveland today believes that Interlingua is the answer to the world's communication problem. He stated that "Isolation of a group of countries in a jet and rocket age is no longer possible or desirable. Yet to a great extent such isolation continues because of the archaic language barrier."

Interlingua is the least common denominator of the European languages, including English. Its vocabulary was formed by standardizing the words which appear in corresponding forms and meanings in three or more language units: French, Spanish or Portugese, Italian, and English, with German and Russian as possible substitutes.

-more-

Cleveland stated that although he had only one year of high school French and two years of college German, he was readily able to understand Interlingua upon reading it. It took him one Sunday afternoon to master its simplified grammar, and about two months to build up his vocabulary so he could write and edit his publication.

In Interlingua, he said, "Le crescente utilitate de interlingua durante le prime 10 annos de su existentia indica que interlingua es un medio effective de excambiar ideas e informationes inter gruppos a lateres opposite del barriera de lingua."

Cleveland's publication is a monthly newsletter which goes to spectroscopists all over the world. With a circulation of 400, it reaches scientists in 31 countries including Russia, India, Switzerland, S. Africa, Canada, Australia, Iraq, Israel, Egypt, Brazil, Hungary, China, and Yugoslavia.

Instead of the ridicule he expected when he distributed 100 free copies among scientists in the first year, Cleveland received more than 100 subscriptions at $2.50 a year. Because circulation has been rising at the rate of about 30 a year since 1952, Cleveland feels that the acceptance of this new language, especially by industrialists, is not a fad, but a proven need.

The medical profession has made a great amount of use of Interlingua. About 25 medical journals, including the Journal of the American Medical Association, now publish Interlingua summaries with all their original articles. Those who cannot read the language of the journal are thus enabled to get the gist of the report to decide whether a complete translation is necessary.

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Cleveland's first contact with Interlingua was when he saw a new publication in 1951 called the Interlingua Dictionary and Interlingua Grammar. The dictionary is still being sold by Storm Publishers, New York City.

Cleveland is working on his own Interlingua dictionary for spectroscopists. He has already defined 600 terms, and plans to include about 3,000 terms in the finished product.

He equates the use of Interlingua to the growth of a healthy oak seedling which is growing vigorously and soundly, but is far from being a big tree. "I think the future is going to see Interlingua, or something very close to it, as a great force in international cooperation. That is, if we don't kill each other off first," Cleveland concluded.

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R RELEASE: IMMEDIATE

May 11, 1962

Dr. Alan T. Waterman, Director of the National Science Foundation, Washington, D.C., will be the Commencement speaker at graduation exercises of the Illinois Institute of Technology in June it was announced today by Dr. John T. Rettaliata, president.

Waterman, who will also be awarded an Honorary Doctor of Laws Degree by IIT, has been Director of the National Science Foundation since 1951.

In his capacity as director of the National Science Foundation, he is also a member of the Federal Council for Science and Technology, the Advisory Committee on Automation and Manpower, the Defense Science Board of the Department of Defense, and also serves as Consultant to the President's Science Advisory Committee.

In 1960, the National Academy of Sciences awarded him its Public Welfare Medal for "eminence in the application of science to public welfare." This award is unique in that it is given for outstanding public service in the uses of science rather than for achievement in any particular scientific discipline.

Dr. Waterman is a Fellow of the American Association for the Advancement of Science, the American Physical Society and the New York Academy of Sciences. He is a member of the American

-more-

Association of University Professors, the American Rocket Society, the Washington Academy of Science, the Washington Academy of Medicine, Phi Beta Kappa, Sigma Xi, and the Scientific Research Society of America.

Dr. Waterman is also a member of the Board of Trustees of the Atoms for Peace Awards, and of the Board of Directors of the American Association for the Advancement of Science.

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RELEASE: IMMEDIATE

May 11, 1962

DRAFTING STUDENTS WIN SCHOLARSHIPS TO IIT

CHICAGO, ILL. -- Two students, from a total of more than the 12,500 were selected winners of the 12th Annual Chicagoland High School Drafting Competition, sponsored by the Illinois Institute of Technology.

They are Robert Kruchten, of 9633 S. Dobson, a student at Chicago Vocational High School, and Richard Matyska, of 8010 S. California, a student at Brother Rice High School. Judged on the basis of correctness of solution and drawing quality by a group of judges from engineering colleges and industry, both students received the award of a $1,200 tuition scholarship to IIT, and the applause of the 450 students, guests and relatives on hand at IIT's Hermann Union Building, where the awards were made yesterday afternoon.

Representing the best of the work of students from 118 public, private and parochial high schools in the Chicagoland and suburban area, the youthful winners were selected from a final judging of over 5,900 drawings.

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In addition to the scholarships, more than 120 students were selected as winners in the six divisions of the competition. First, second and third place winners were named for each division, and received their certificates and prizes from Dr. Thomas E. Hogan, Dean of Students at IIT. Certificates of Honorable Mention, Mention and Favorable Consideration were distributed to runners-up in the competition.

Favorable comment was registered by Professor John T. Dygdon, Competition Director, and Professor Henry C. Spencer, Competition Coordinator and Director of IIT's Technical Drawing Department. Both seemed to agree that although the drafting problems for each of the six divisions were more difficult than in previous years, a much higher quality of drawing technique and solution was exhibited by the entrants.

First, second and third place winners of each division follow:

DIVISION ONE - Introductory Drafting

First Place	- Jerry McDonnell	- St. George High School
Second Place	- Brian Hollen	- Taft High School
	- Jerry Schermerhorn	- East Aurora High School
Third Place	- Michael Fejes	- Chicago Vocational
	- Kenneth Frigo	- Chicago Vocational
	- John Heydt	- St. George High School

-more-

DIVISION TWO - Intermediate Drafting

First Place - Bernd Boyt - Lane Technical High School
Second Place - Bill Doerr - Harlan High School
- Tom Lucas - Mooseheart
Third Place - Thomas Metler - St. George High School
- Edward Poya - Chicago Vocational
- Bill Rietelbach - Mooseheart

DIVISION THREE - Introductory Machine Drafting

First Place - Tom Pilewski - Chicago Vocational
Second Place - Woody Kenton - Chicago Vocational
- Philip Persiani - Homewood-Flossmoor
Third Place - Casimir Duval - Gage Park
- Wayne Krause - East Leydon
- John Sheehy - Chicago Vocational

DIVISION FOUR - Introductory Architectural Drafting

First Place - Richard Redemske - Taft High School
Second Place - Donald Freeman - Taft High School
- Tom Potter - Mooseheart
Third Place - Gary Graham - Oak Park-River Forrest
- Karl Mahumed - Mooseheart
- Jim Sonnenletter - Oak Park-River Forrest

-more-

ADD 3 -- Technical Drawing

DIVISION FIVE - Advanced Machine Drafting

First Place - Jesse Espinosa - Chicago Vocational
Second Place - Gordon Hultmark - Chicago Vocational
- Charles Laroche - Mooseheart
Third Place - Norman Kehl - Lane Technical
- Chris Slebos - Chicago Vocational
- Robert Zummaller - Bremen

DIVISION SIX - Advanced Architectural Drafting

First Place - John Gaden - Chicago Vocational
Second Place - Edwin Billings - Lane Technical
- Morton Outten - Chicago Vocational
Third Place - Al Broholm - Chicago Vocational
- William Losch - Lane Technical
- Robert Puchalski - Chicago Vocational

An Honors Assembly for the winners in the competition was held at the IIT Hermann Union Building at 3:00 p.m., yesterday, in which parents, teachers, principals and friends gathered to view the winning entries.

-more-

ADD 4 -- Technical Drawing

Speakers at the assembly included Prof. H. C. Spencer, Director of the Technical Drawing Department at IIT, Dr. Ralph G. Owens, Dean of Engineering at IIT, Dr. Thomas E. Hogan, Dean of Students, Brother James C. Bates, Director of the Brother Rice High School, and Dr. Hobart H. Sommers, Assistant Superintendant of Schools for the Chicago Board of Education.

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R RELEASE: IMMEDIATE

May 14, 1962

CHICAGO, ILL. -- Techniques used for developing the large electronic computers of our Space Age may some day help doctors better understand the complexities of the human brain.

And, converseley, the medical profession's achievements in neurology and psychology may very well solve the most complex problem of them all; how to build a machine that thinks for itself.

These techniques and the unique electronics-biomedicine relationship will be main topics of discussion in Chicago next week when engineering scientists and biomedical researchers get together for a Conference on Self-Organizing Systems.

Sponsored by the Office of Naval Research and the Armour Research Foundation of Illinois Institute of Technology, the conference will be held at the Museum of Science and Industry on May 22 to 24.

A self-organizing system is one that changes its behavior in accordance with the inputs it receives from its environment, explains George T. Jacobi, assistant director of Electronics Research at ARF, and the secretary of the Conference.

Essentially, such a system goes well beyond mere adaptibility to environment, he went on. It can actually form concepts from the information it receives. The more information, the stronger the concept, and eventually the system can formulate its own goals.

-more-

Add 1 -- Self Organizing Systems Conference

The most obvious example of a self-organizing system is the human baby, Jacobi pointed out.

From the studies of motivations and behavioral patterns of not only humans, but other living animals as well, we hope to be able to implement thinking capabilities electronically, he explained.

By the same token, much valuable psychological and neurological data can be attained through the techniques employed in the development of automata and self-organizing systems, Jacobi believes.

More than 400 scientists are expected to attend the three-day conference which will feature more than 25 technical papers by leading authorities and researchers in the field of self-organizing systems.

The conference is the second one held, the first also having been held in Chicago three years ago.

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RELEASE: IMMEDIATE

May 14, 1962

CHICAGO -- Illinois Institute of Technology's annual reunion dinner for its alumni Friday, May 18 will be spot-lighted by a variety show composed of professional entertainment.

To be held in IIT's new $3 million Hermann Hall union building beginning at 6:30 p.m., entertainers at the dinner will be comedian and emcee Dink Freeman, guitarist Joe Sodja, organist Mary Kay, and ballad singers Earon and Thompson.

On that same evening, Illinois Tech alumni members will elect their national officers for 1962-63, and two alumni will receive special awards. Dr. John J. Gilman, engineering professor at Brown University and 1940 graduate of IIT will receive the association's "Distinguished Service Award;" and Arthur J. Jens, manager of the Chicago branch office of the Fund Insurance Companies and a 1931 IIT graduate, will recieve the annual "Service Award."

-more-

Freeman is a comedian who employs nine dialects and nostalgically imitates the songs and dances of Al Jolsen, Pat Rooney, Durante, Cohen and other stars. Sodha is a 6 foot 4 inch personality who was for four years with Fred Waring's Pennsylvanians and has appeared at the Latin Quarter, The Fountainebleau in Miami Beach, the Mayflower in Washington, and at the Waldorf Astoria in New York. A noted Chicago artist, Mary Kay has often been featured on WBKB and WGN-TV. Singers Earon and Thompson have appeared in the Broadway musicals "Annie Get Your Gun," "Showboat," and have appeared on CBS and NBC network TV.

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R RELEASE:

IMMEDIATE

May 14, 1962

RESEARCH GRANT AWARDED TO ILLINOIS INSTITUTE OF TECHNOLOGY

CHICAGO -- A $24,500 grant has been awarded to the Illinois Institute of Technology by the National Science Foundation in support of research entitled "Interactions of Halogens with Borazine and Some of its Derivatives."

The project, expected to take about two years, will be under the direction of Dr. John E. Frey, assistant professor of chemistry at IIT. Dr. Frey, who has been with the Institute for two years, earned his PhD from the University of Chicago in 1956.

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May 14, 1962

IIT NET SQUAD TO MEET AURORA WEDNESDAY

CHICAGO -- Illinois Institute of Technology's tennis squad, th a 3-5 season record, will meet Aurora College at Aurora in a 30 match Wednesday, May 16.

IIT lost its last match to Valparaiso 7-2 although Tech's Golton won the first singles and teamed up with Jim Carlin to the first doubles. The other IIT netmen could not win a match.

ILLINOIS TECH GOLF TEAM IN CITY TOURNEY

Illinois Tech's golf squad will again participate in the ual Chicago City School Collegiate Golf Tournament, Friday, 18. Tourney host this year will be the University of Chicago.

IIT's record thus far is 3 wins, 4 losses, and 1 tie.

IIT TO PARTICIPATE IN CIC TRACK MEET

Illinois Tech's track team will take part in the Chicago dependent College Meet to be held Saturday, May 19, at Concordia llege in River Forest.

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IIT last year finished fifth in the meet. So far this year, he Techawks have won 7 meets and lost 5. They took only two of heir first seven meets, but have won their last five contests.

In IIT's last outing, it won a four-school meet in Rockford: IT 93, Milton College 61 1/2, Rockford College 44 1/2, and Trinity llege 22.

Tech sprinter Jack Novosel has yet to be beaten this season the 100 and 220 yard dashes. He broke the school 100 record with 9.8 clocking earlier in the year. Pole vaulter John Vomastic, o also broke a school mark this season hasn't lost in his specialty nce the first meet of the season.

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R RELEASE: IMMEDIATE

May 16, 1962

CHICAGO -- The award of a National Science Foundation fellowship to Dr. George J. Resnikoff, Director of the Department of Industrial Engineering was announced recently by Illinois Institute of Technology which has granted him a leave of absence.

Resnikoff will work on Operations Research, the application of mathematical techniques to the problems of industry, as a Visiting Scholar at the University of California at Berkeley during the academic year 1962-63. He will spend the summer of 1963 at Stanford University. He is one of 325 scholars throughout the United States to receive one of the twelve-month scholarships.

A native of New York City, Resnikoff is the author of a number of articles in professional journals, and of a book tabulating an important statistical probability distribution which has attracted international attention.

Serving as Acting Director of Industrial Engineering during Prof. Resnikoff's absence will be Dr. Stanley Block who will join the staff of Illinois Institute of Technology in September as Professor of Industrial Engineering. Professor Block is presently Associate Professor of Production Management at the Graduate School of Business of the University of Chicago. Block received his Ph.D. in Industrial Engineering at the University of Minnesota, where he taught before coming to Chicago.

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of Illinois Institute of Technology
Institute of Gas Technology

For further information on this release, contact:

M.T. Noar
CAlumet 5-9600 Ext 2745

R RELEASE:

12 Noon Wednesday
May 16, 1962

CLEVELAND, O., May 16 -- America's ability to compete with foreign nations on the growing world common market is being threatened by inefficient use of scientific resources by U.S. industries, a leading Chicago scientist said here today.

Speaking before the 1962 Research and Utilization Conference here, Dr. Haldon A. Leedy, director of the Armour Research Foundation of Illinois Institute of Technology cautioned that the increasing investment in research in this country is no guarantee of increased output or productivity.

Although the U.S. currently produces more than 40 percent of the world's goods and services, we are going to find ourselves in the economic back seat as an influential power in the world market unless we invest wisely in scientific research, Leedy said.

He cited the challenging industrial and economic force that has been established by the nations of Western Europe in less than a decade.

These nations, along with Soviet Russia, Leedy went on, are all driven by the tremendous incentive of having to come from behind. And in some areas, their development has been breathtaking, he said.

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ADD 1 --Leedy Speech

Leedy pointed out that we lag far behind Russia in the number of degree scientists and engineers graduated per year, and that there is no assurance that we will be able to change this picture appreciably in the future.

Thus we must utilize our scarce scientific manpower with utmost efficiency if we hope to maintain our lead in the race for world technological supremacy, Leedy said.

Many U.S. industries are wasting their scientific resources and manpower, according to Leedy, and this not only hurts the industries that are attempting to develop their research operations toward maximum productivity, but it also hinders the American economic effort as a whole.

Leedy called for a better understanding of research and development by top management personnel. Many top scientists are being used for jobs that lesser trained people would be capable of handling. Leedy attributed much of this wasted efficiency to the lack of knowledge on the part of top management conerning the scientist's problems and his capabilities.

Too many companies feel that all they need is to hire a group of scientists, equip them, and all sorts of new development and new products will result, Leedy said.

He appealed to American industries to plan well-rounded programs, to include research ideas for new products and processes, and careful estimates of market potential for new products.

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He went on to say that emphasis on selection, retention, utilization and continued training of high quality scientists and engineers should be a prime consideration for top management.

If we conduct our research efficiently, Leedy concluded, we may look forward to becoming as efficient in research as we are in production, and thus maintain America's leadership in scientific and industrial productivity.

-30-

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Institute of Gas Technology

R RELEASE: Thursday
May 17, 1962

For further information on this release, contact:
James Stathas
CAlumet 5-9600, Ext. 2747

CHICAGO, May 17 -- Two Illinois scientists have developed a year round home air conditioning system which uses the sun as its main source of energy.

The system utilizes a ratio of 2 1/2 parts of solar energy and one part of electrical energy, thereby conserving the nation's fossil fuel supply. Because many of our scientists believe that all the present energy, including atomic energy, will someday be depleted, laboratories all over the nation are trying to find ways to harness solar energy so that we can conserve our natural fuel resources.

Kadaba V. Prasanna, Illinois Institute of Technology mechanical engineer, and Dr. E. B. Penrod, visiting professor of mechanical engineering at the University of Illinois, have utilized a roof type and/or wall type solar energy collectors with a heat pump to furnish most of the heat needed for the average home.

The cost of such a unit if mass produced, Prasanna estimated, would run about 150 per cent more than heating units now in existence, but the consumer could save up to 70 per cent on fuel bills, and would benefit from air conditioning in the summer.

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The solar collector, probably located on the garage roof facing south, would capture the sun's heat and transfer it to water circulating through coils leading down into the ground, through the solar earth heat pump, and then into the home's heating system. During the evening, when the roof collector is useless, the water in the solar earth heat pump will be heated by the energy captured in the earth from the sun, and from excess heat circulated by the collector during the day before. The ground actually acts as a reservoir and this energy will be readily available during nights and cloudy days when there will be either no radiation or insufficient radiation from the sun.

The material of the solar collector is aluminum upon which the top surface is painted black, thus absorbing the sun's heat. Many different types of collectors have been developed. For water and space heating without a heat pump a flat plate collector can be used in which a temperature as high as 195 degrees Farenheit has been attained. For conversion of solar energy into power, a mirror collector is used in which a temperature as high as 8500 degrees Farenheit has been attained.

Experimental houses have been built in several parts of the U. S. to determine influence of various factors on space heating. Both Penrod and Prasanna have designed solar collectors for space heating. The performance of these collectors for a

-more-

continental type climate such as in Lexington, Ky. was investigated and high efficiency was recorded by the scientists.

Prasanna pointed out that during the last ten years, man has used more fuel to produce energy than he had in all the centuries before. Therefore, he stated, experiments of this type, which lead to utilizing a non-exhaustible energy supply, will allow man to conserve conventional fuels to use in situations where a great amount of power is needed. In this system for home heating, Prasanna pointed out that for every unit of electricity consumed one unit of fossil fuel energy is saved for future use.

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For further information on this release, contact:

Conrad E. Locander
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R RELEASE: FRIDAY
MAY 18, 1962

CHICAGO, ILL., MAY 18 -- A stronger, more economical method of joining face brick to concrete block was disclosed today by the Armour Research Foundation of Illinois Institute of Technology.

Demonstrating that wire reinforcement can replace traditional brick header joints in masonry without detriment to the soundness of masonry walls, Seymour A. Bortz, research engineer at the Foundation, feels that this method of construction has considerable merit over the more conventional header type of construction.
In other portions of a study, which was conducted for the Dur-O-waL Division of Cedar Rapids Block Company, it was found that wire joined walls are less permeable to moisture than walls constructed with brick headers. They also exhibited an additional factor of safety after initial cracking occurs.

Tests were run on the traditional header-tied walls, a truss-type wire wall tie and a tab-type wire wall tie. A static water permeability technique was developed by ARF scientists to measure resistance of 8-inch walls, by bolting a chamber to the face of the walls and applying positive pressure of 20 or 35 pounds per square foot, while a sheet of water flowed over the face of the specimens.

-more-

Specimens in the Foundation study were built by a practicing mason, using first class techniques, to a size of four feet wide by eight feet high. Walls were of two thicknesses, eight and twelve inches, and consisted of a face brick with either four or eight inch concrete block back-ups. The wythes were tied together with either a standard brick header every seventh course, or one of the two continuous wire ties at every sixth joint. Three walls were built for each condition to be studied, and all were composed of materials in accordance with ASTM regulations governing methods of construction.

Compression tests yielded the following conclusions: (1) Initial failure due to compression is not affected by the type of wall tie; (2) After initial failure, however, wire ties appear to be more effective than header ties in holding a wall together. Statistical analysis showed that the 8-inch walls tied with truss-type reinforcement were significantly stronger than equivalent walls tied with brick headers.

Tests to study the vertical resistance to wind loading of the walls were performed and analysis of the data revealed no difference in the wall strength due to the type of tie employed.

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The explanation for this, according to Bortz, is that vertical transverse strength is a function of mortar-masonry bond. The bond is not affected by the horizontal reinforcement. This may not be the case for loading in the horizontal direction (ie., bending between columns), and investigations are presently underway to determine the additional strength provided by the continuous horizontal reinforcement.

In the water permeability studies, sketches were made of the area of water penetration on each block course after the walls were dismantled. Studies firmly indicated that wire-tied walls conducted less seepage than did the header-tied specimens.

"Because wire-tied walls do not provide a continuous path for water to travel through the wall, less saturation was noted. The colar joint, a major barrier, is capable of soaking up considerable quantities of water before the moisture is transmitted into the block mortar joints," Bortz said. In contrast, the header brick mortar interface provides a continuous path through the wall, and under the pressure of wind, seepage will occur in an hour or two as compared to several days for a wire-tied wall, he said.

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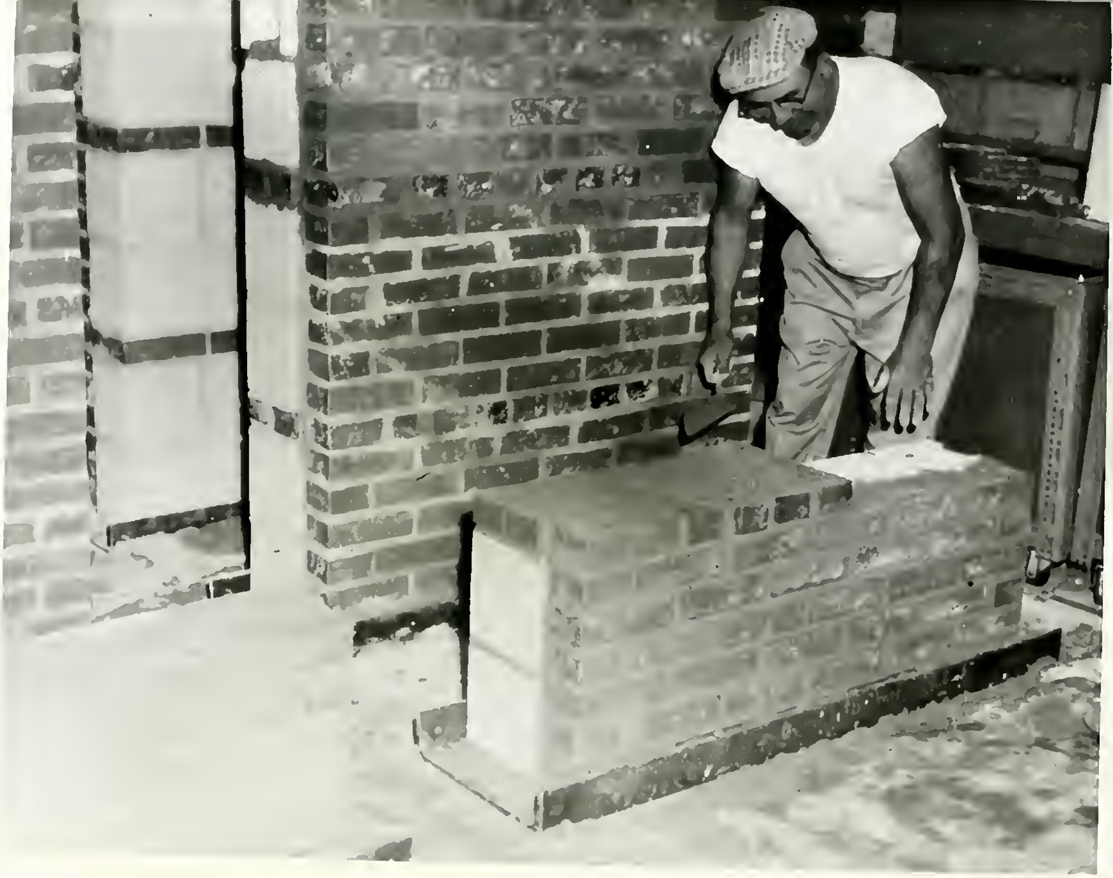
Because of the inherant nature of wire wall ties to produce better walls, there is good reason to believe that local building codes will be augmented to allow for this type of construction, Bortz said. He added, that while national building codes provide for the use of continuous wire reinforcement in lieu of headers, many local codes restrict their use in load bearing walls because insufficient information was available, until now, to show the beneficial properties of wire wall ties.



Walls were constructed by a practicing mason, using first class techniques. Mason shown here is laying in the brick header tie course.

news from

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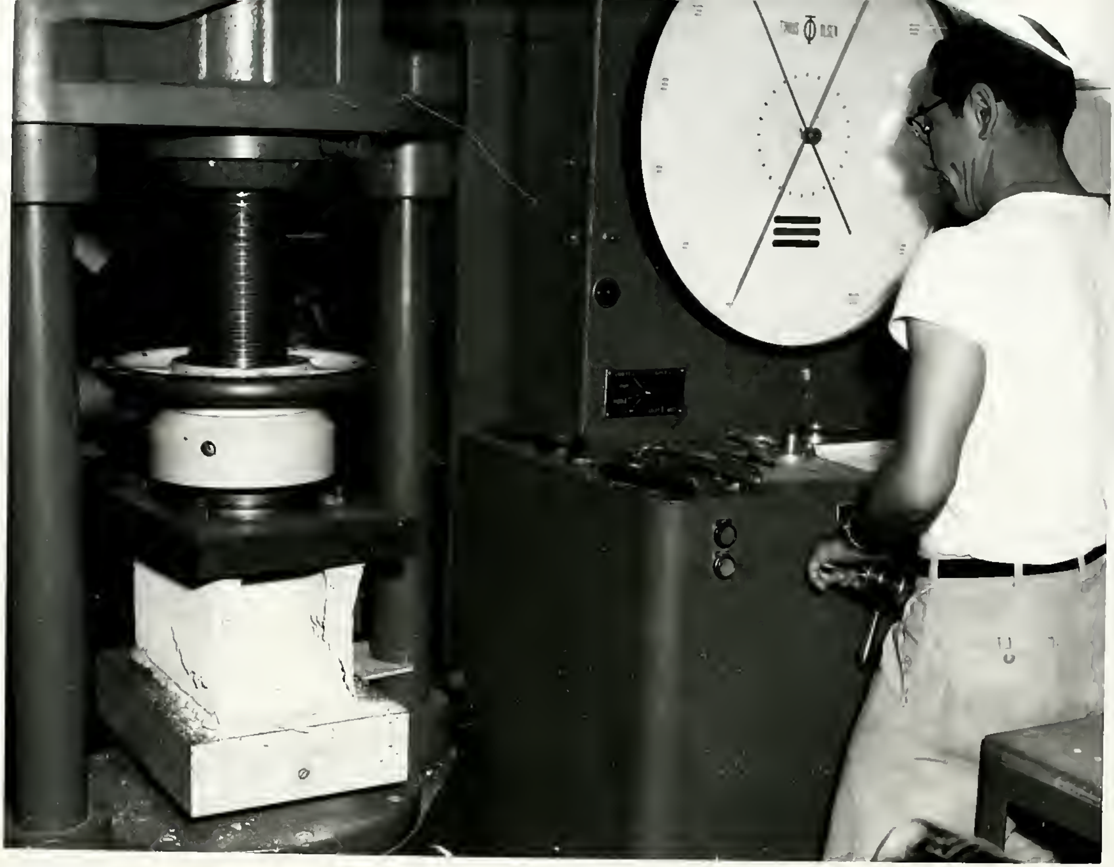

Concrete Block is given compression test at Armour Research Foundation of Illinois Institute of Technology, by Hikoru Nagao, associate engineer. All materials were checked to insure that they adhered to ASTM codes.

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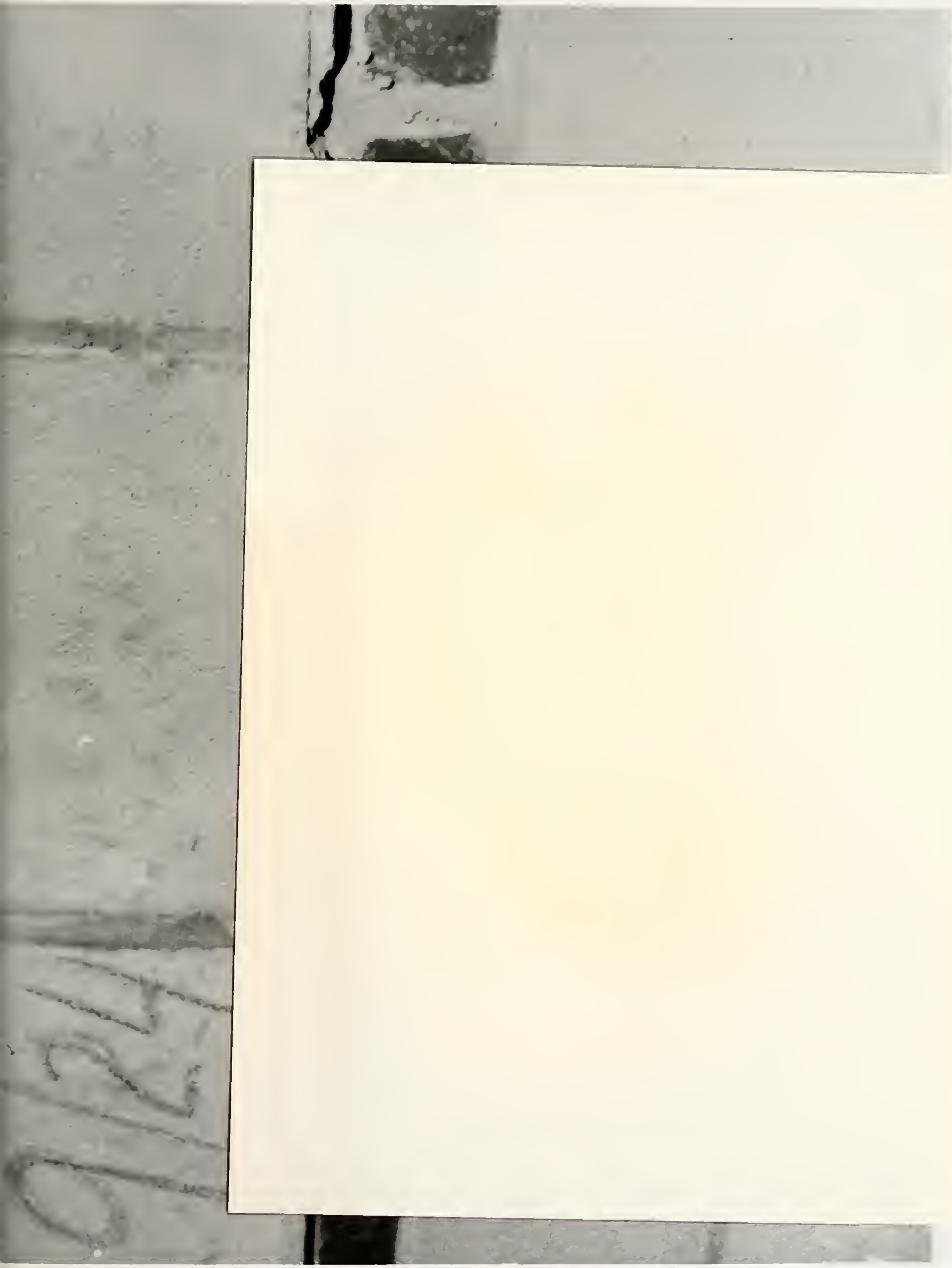

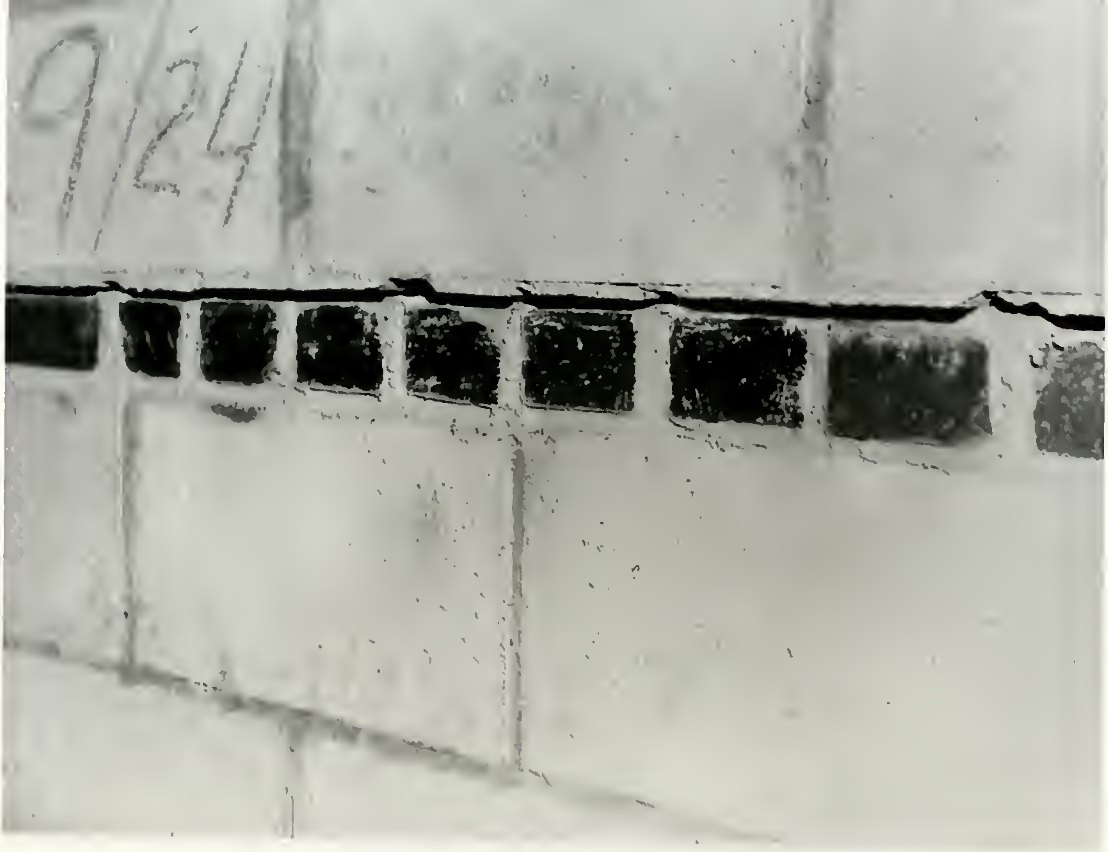

A typical failure in a header-tied wall is shown in this photograph. Other failures occurred between block courses, but only occasionally.

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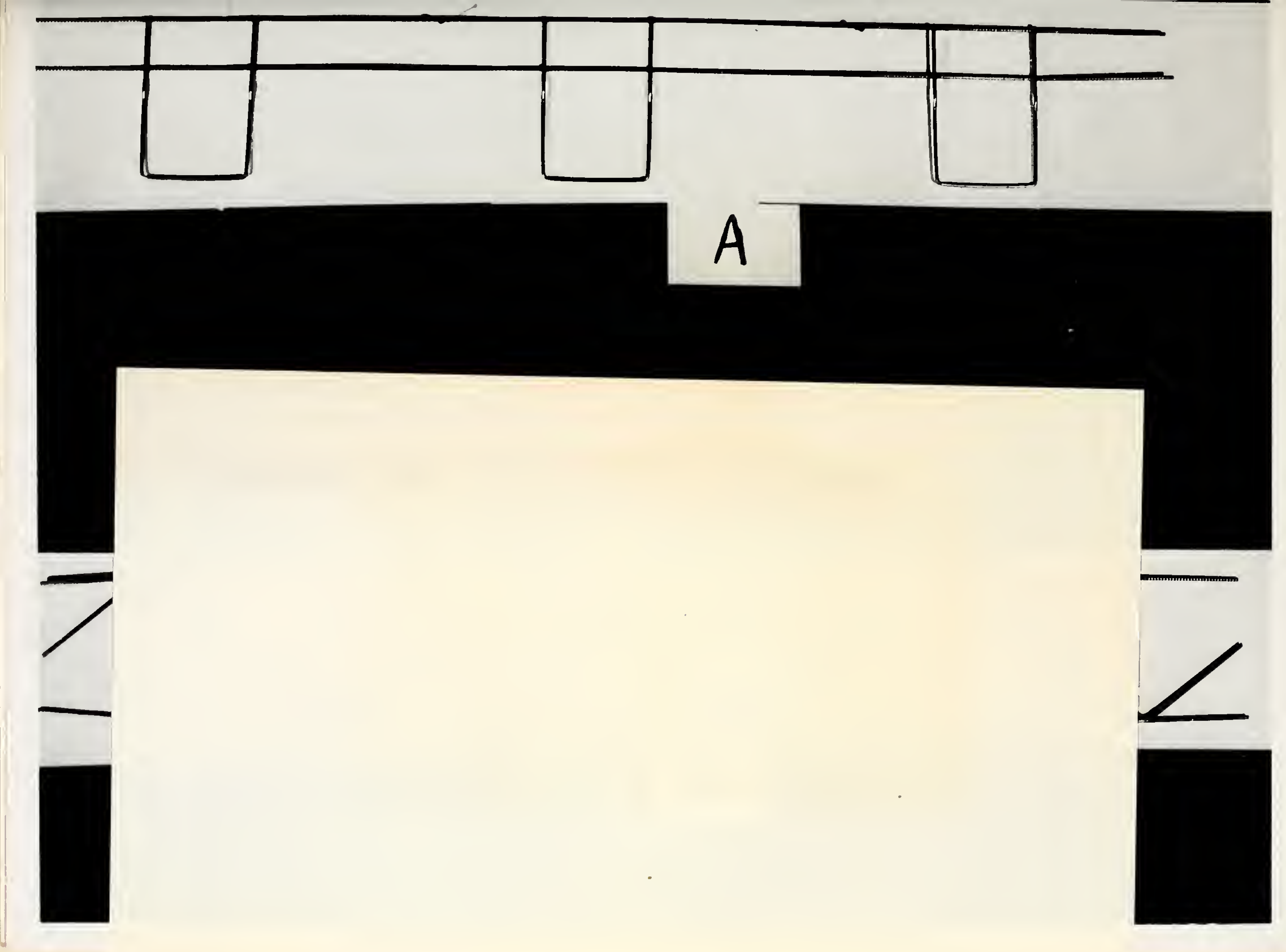
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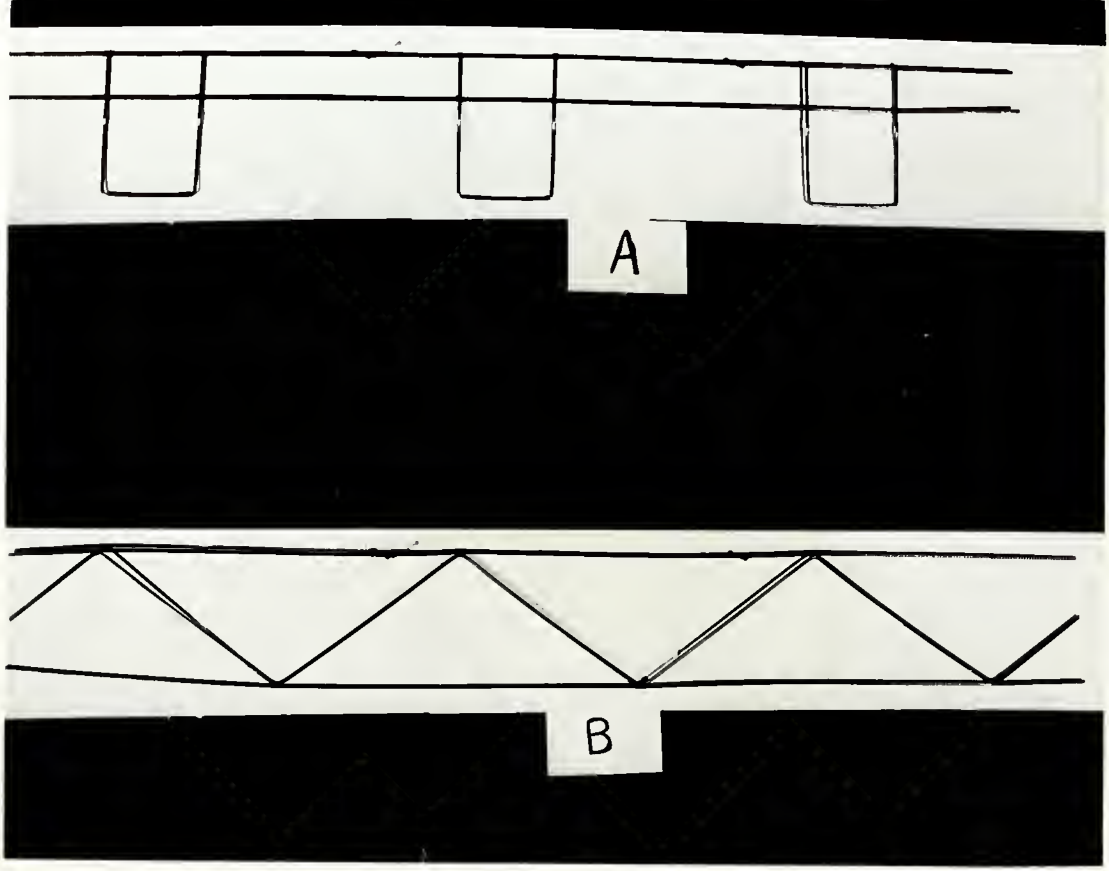

WIRE WALL TIES, Developed by the Dur-O-waL Division of the Cedar Rapids Block Company have shown favorable results at Armour Research Foundation of Illinois Institute of Technology. They are (A) the Tab-type wire wall tie, and (B) the Truss-type wire wall tie.

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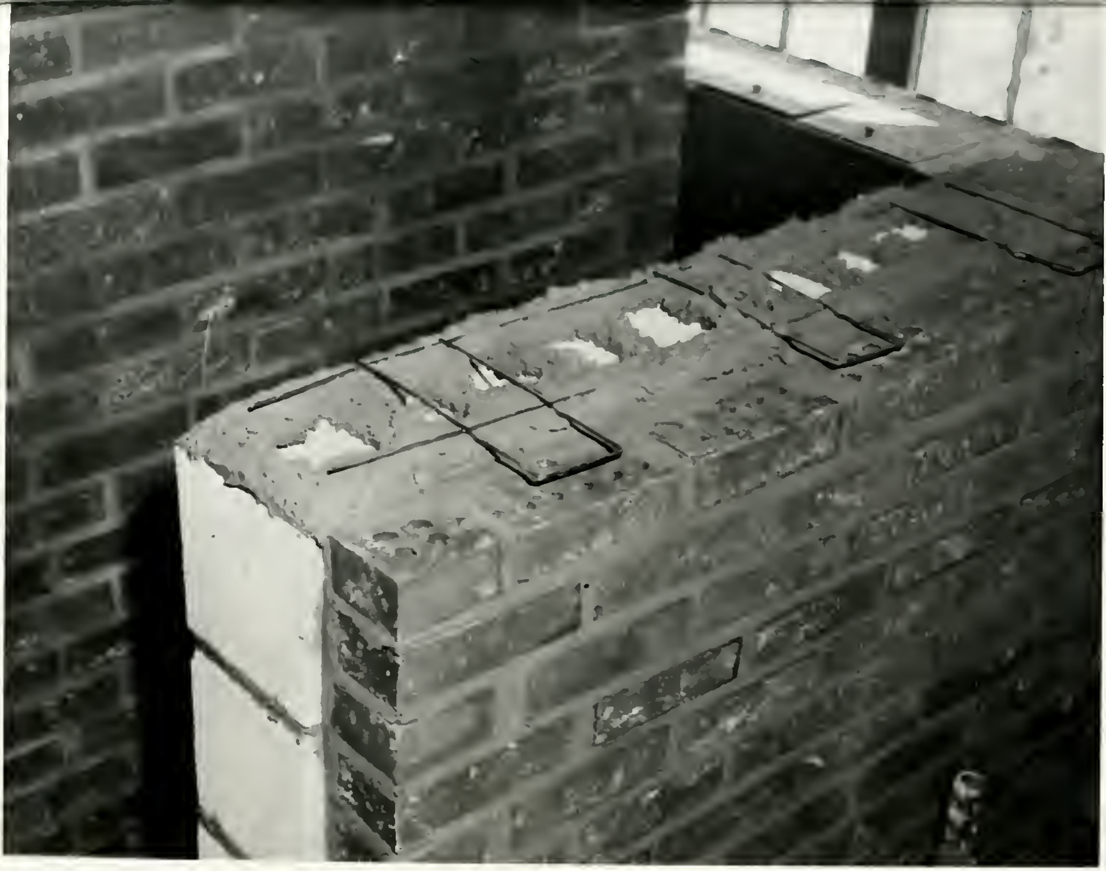

Unfinished test wall at Armour Research Foundation shows the placement of the tab-type wire wall tie. Wire wall ties have shown many favorable properties over the traditional brick header joints in masonry construction.

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For further information on this release, contact:
Jim Stathas
CAlumet 5-9600 Ext 2747

May 17, 1962

OR RELEASE:

Saturday, May 19, 1962

CHICAGO, May 19 -- Maynard P. Venema, board chairman and chief executive officer of Universal Oil Products Co., was elected national president of the Illinois Institute of Technology Alumni Association, at the organization's reunion dinner last night.

Venema is a 1932 graduate of Armour Institute of Technology, predecessor to IIT.

Also elected to key offices were Arthur E. Jens, manager of the Chicago branch office of Fund Insurance Companies, as vice president; and Paul C. Cuvala, general office manager for Materials Service Corp., as secretary.

Venema, a native Chicagoan, joined UOP three years after his graduation from Armour Tech. He was named vice president in 1949, executive vice president in 1952, president in 1955, and elected to his present position in 1961. He also holds a bachelor of laws degree from Georgetown University. He is director of Goodwill Industries and a member of the Newcomen Society in North America.

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OR RELEASE: Tues, May 22, 1962

For further information on this release, contact:
James Stathas
CAlumet 5-9600, Ext. 2747

CHICAGO, ILL., May 22 -- A new service to help American industries enter foreign markets, thus permitting this country to compete equitably on the European Common Market was announced today by the Armour Research Foundation of Illinois Institute of Technology.

An expansion of its existing international operations, the new service will help small businesses penetrate the area of foreign exporting, and will aid larger industries in the establishment of foreign bases of operation.

In making the announcement, Dr. Haldon A. Leedy, Foundation director, stated that because of the formulation of the European Common Market, more U. S. industries must enter foreign markets if this nation's economy is to remain healthy.

Leedy also stated that many of this country's smaller companies already have basic product lines which are readily adaptable to foreign markets. However, he said, a lack of knowledge of "how to begin exporting" has provided a substantial impasse which hinders increase of sales, and affects the U. S. export-import ratio.

-more-

ADD 1 --

The establishment of new foreign operations by companies will be implemented by Armour in the areas of foreign distribution, licensing, foreign branches, assembly, manufacturing facilities, and joint ventures.

ARF's current international activities include broad economic, industrial and agricultural planning programs for foreign nations and especially the less developed areas abroad; establishing research institutes for foreign countries; and from its office in The Hague, helping U. S. companies in keeping abreast of latest European technological and marketing developments.

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For further information on this release, contact:
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OR RELEASE: IMMEDIATE

May 22, 1962

APRIL DUSTFALL DOWN 5%

CHICAGO, ILL.,--April dustfall in Chicago dropped to 51.4 tons per square le, or five per cent from the 54.0 tons measured during last March, accordin measurements at Armour Research Foundation of Illinois Institute of chnology. However, further analysis revealed that April readings were per cent higher than in April 1961.

A high of 243.7 tons per square mile was recorded at 8858 Marquette Street the South Side of the city, and inasmuch as this reading was three to four nes the usual deposit for the station, collection jars were checked for ssible tampering, but were found to be intact as far as laboratory analysis ıld determine. Second highest reading for the month was recorded at La - lle and Washington, in the Loop, at 75.6 tons per square mile.

Lowest measurements for the month were made at 1620 W. 99th Street and 50 W. Pratt Avenue with 20.2 and 23.0 tons per square mile respectively.

Further statistics, revealed by Samuel Radner, Foundation specialist air pollution and fine particle control, showed that April heating quirements were only half of the requirements for March, and only three rters the requirements for April 1961. Other analysis showed that there s only half the precipitation of the previous April and three and one lf per cent of the snowfall of last year (.03 inches vs. 8.8 inches).

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APRIL DUSTFALL - ADD 1

CHICAGO TOTAL DUSTFALL
Trends by Station
April, 1962
Tons Per Square Mile Per Month

Sta. No.	Station Address	Readings in April, 1962	March 1962	April 1961
1	State & Adams	61.3	79.0	55.3
2	33 N. La Salle	75.6	100.6	72.3
LOOP AVERAGE		68.5	89.8	63.8
3	2135 S. Michigan	42.6		61.2
4	825 E. 44th	70.1	41.0	51.1
5	1362 E. 59th	32.7	37.1	36.1
6	7351 Stony Island	66.8	83.6	61.0
7	67 W. 113th Place	30.9	58.0	45.8
8	8858 Marquette	243.7	76.5	70.7
9	3105 W. 63rd.	43.2	55.6	41.9
10	6140 S. Melvina	42.7	54.7	38.3
11	7559 Eggleston	26.6	42.8	31.3
12	1620 W. 99th	20.2	28.0	27.8
13	3608 Ogden	44.8	42.8	25.4
14	1500 W. Monroe	43.3	59.5	50.3
15	5055 Fulton	40.2	61.5	45.5
16	2940 W. Cortland	40.0	49.8	118.9
17	5602 Belden	24.6	39.3	36.3
18	3944 N. Sawyer	41.0	42.8	37.1
19	7350 Pratt	23.0	26.4	31.2
20	54 W. Hubbard	58.8	75.1	59.3
21	551 Grant Place	38.8	51.1	40.8
22	3532 Sheffield	62.1	70.7	48.8
23	1622 Pratt Blvd.	32.2	37.8	39.1
25	2240 W. 37th	45.5	63.3	40.7
Average (Incl. Loop Avg.)		51.4	54.0	44.8

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R RELEASE:
IMMEDIATE

For further information on this release, contact:

Ed Hansen
CAlumet 5-9600, Ext 2747

May 23, 1962

CHICAGO, -- Buildings of the future will be designed almost exclusively with electronic computers, according to a leading Chicago civil engineering educator.

This view was expressed by Dr. K. H. Chu, associate professor of civil engineering at Illinois Institute of Technology. Chu, who uses the Institute's IBM 1620 computer in teaching computer applications to advanced civil engineering students, believes that such courses will become a standard part of the civil engineering curriculum. At present, he knows of only one similar course specifically designed for civil engineering students, offered at the University of Michigan.

While structures designed with the help of electronic computers may represent radical departures from present-day design, Chu said, they will offer the ultimate in economy and efficiency. He foresees the day when superhighways; long span bridges; roomy, compactable portable houses; star-travelling space cruisers and other wonders will be electronically designed.

Already, Chu explained, computers have been used by civil engineers in the design and construction of dams, waterways, bridges and express highways. "Before long," declared Chu, "the first thing an employer will ask a job-hunting civil engineering graduate is how well he can use an electronic computer to save time and money in design.

ADD 1 --Computer Design of Buildings

"For incstance," he said, "computers, used in stress analysis, are certain to lead to more economic use of materials."

One difficulty in making electronic computers tools in the classroom, Chu explained, is the length of time required for the individual student to formulate and submit his program to the computer. Half of the 60 hours of classroom work in Dr. Chu's current computer applications course must be devoted to structural problems that can most economically be solved by use of the computer and to the learning of computer technology. As a result of this, and because the time that any one class can use the computer is limited, Dr. Chu feels that the time devoted to giving each student actual computer experience is too restricted. This will be rectified when more computers are available and when additional courses in the use of computers are offered.

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For further information on this release, contact:

Ed Hansen
CAlumet 5-9600 Ext 2747

OR RELEASE:

IMMEDIATE

May 24, 1962

ILLINOIS TECH COED CHOSEN CHEMISTRY PRINCESS

CHICAGO -- Illinois Chemical Princess for 1962 was the title bestowed recently upon Janice Bienias, a chemistry student at Illinois Institute of Technology.

Miss Bienias was chosen for the honor by the Chemical Industries Council of the Midwest for "her outstanding scholastic record and her aptitude for science."

The purpose of the Chemical Princess awards, a council spokesman explained, is to point up the opportunities for women in the field of chemistry and to show that women are showing interest and ability in science.

Miss Bienias, who lives at 2508 Gunderson, Berwyn, Ill., is in her last semester at IIT and plans to begin a career in engineering upon graduation.

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Conrad E. Locander
CAlumet 5-9600, Ext 2746

R RELEASE: IMMEDIATE

May 24, 1962

PLANS RETIREMENT

CHICAGO, ILL. -- Professor Henry C. Spencer, chairman of Illinois Institute of Technology's Technical Drawing Department, leading author and educator, announced plans for his retirement earlier this week.

Lauded by IIT officials for his outstanding work in developing new and better drawing methods, for establishing advanced degree courses in the subject at IIT, and for his accomplishments in educational betterment, Spencer was honored at a reception at the IIT Faculty Club Lounge.

Spencer graduated from Baylor University in 1929 with a Bachelor of Arts degree, receiving his Master of Science degree at Texas A&M College a year later. In 1940 he was awarded a Bachelor of Science degree in Architecture at Texas A&M, where he held the position of Professor and head of the department of Engineering Drawing from 1930 to 1941.

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He was appointed Director of the Department of Technical Drawing at Illinois Institute of Technology in 1941, and under his leadership established IIT as the only school in the country offering an undergraduate degree-granting program leading to a Master's degree in Engineering Graphics. Today, the curriculum offers 40 courses in technical drawing, ranging from basic technical drawing required of all engineering and science students, to specialized courses on the graduate level which are geared for teacher preparation.

In 1958, Spencer was cited for "having done outstanding work as a teacher with ability to inspire students, improvement of the tools and conditions for teaching, improvement of teaching through various activities, scholarly contribution, and service to the Division of Engineering Drawing," of the American Society for Engineering Education. For this work, he received the Society's Distinguished Service Award. Active with the Society for over 30 years, Spencer was named National Chairman of the engineering drawing division in 1948.

In addition to his role as teacher, member of many professional organizations, and capable administrator, Spencer has authored and co-authored many books on technical drawing. Two of the most successful books, Basic Technical Drawing, and Technical Drawing, have been cited as best sellers in their field, and are being used as basic texts in many schools throughout the country. His books, eight in all, have sold over a million copies.

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Spencer is listed in "Who's Who in Engineering," "Who's Who in American Education," "Who's Who in Texas," "Who's Who in Chicago," and "Who's Who in American Art," the latter for his rendering of two life sized portraits of Baylor University officials which hang in the Browning Library of that school.

For health reasons, Spencer will retire to a home in Waco, Texas, but will continue to remain active with many of his professional groups. He is currently working on another book with Prof. Ivan L. Hill of IIT's Technical Drawing Department. Prof. Hill has been appointed Spencer's successor, effective September 1.

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For further information on this release, contact:

James Stathas
CAlumet 5-9600, Ext. 2748

R RELEASE:
Friday, May 25, 1962

IIT ANNOUNCES MUSICAL EVENTS FEATURING INTERNATIONAL ARTISTS

CHICAGO, MAY 25 -- A series of musical events featuring internationally known artists will be presented at Illinois Institute of Technology next season, sponsored by IIT and its students' Union Board, it was announced today.

All performances of the new "Artists Series" will take place on Friday or Saturday evenings, and will be presented in the auditorium of IIT's new $3 million Hermann Hall, the student union building.

Five attractions have been scheduled for the series, with a sixth to be announced shortly. Appearing will be Jose Iturbi, Rey de la Torre, Lois Marshall, Anna Russell, and Suzanne Bloch.

This is the first time that the Illinois Tech administration and its student government have combined efforts to offer the campus and community a fixed program of major artistic events, although IIT in the past has offered programs ranging from the Fine Arts Quartet to Bob Gibson.

-more-

Opening the series will be Jose Iturbi, celebrated Spanish-born pianist who will present his first Chicago recital in several years when he inaugurates the series, Friday evening, Oct. 12. Iturbi will appear this summer with the Chicago Symphony Orchestra at the Ravinia Festival.

Cuban-born guitarist Rey de la Torre, who has appeared at every leading European festival, will be the second recitalist, Saturday, Nov. 3.

The third artist in the series will be Canadian soprano Lois Marshall who will sing a recital February 16. This fall Miss Marshall will make her fifth tour of Russia, the only western artist to have been invited so often.

Concert comedienne Anna Russel will appear at Illinois Tech March 9, making her first Chicago visit in several seasons. Miss Russell has appeared as soloist with many symphony orchestras, and with several opera companies, but she is most celebrated as a satirical singer whose humorous approach to the serious aspects of music proves as educational as entertaining.

Suzanne Bloch, lutenist, singer to the lute, player of virginals and recorders, will conclude the initial IIT "Artists Series" with a program on April 20. Miss Bloch, daughter of the

-more-

late Swiss composer Ernest Bloch, specializes in the music of Elizabethan England, but her repertoire ranges the entire area of folk and art music of many ages and countries.

A sixth event, expected to be a concert featuring a leading jazz ensemble, will be announced in the near future.

A limited number of season tickets will be made available to the public. Further information may be obtained by writing to the manager of Artist Series, Byron Belt, Chicago Concerts, Inc., 410 S. Michigan Ave., Chicago 5.

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Conrad E. Locander
CAlumet 5-9600, Ext. 2746

R RELEASE:

IMMEDIATE

May 31, 1962

CHICAGO, ILL. -- Three Illinois Institute of Technology students have been selected by the Graham Foundation for Advanced Studies in the Fine Arts to represent their school among the nation's leading designers and planners, it was announced today.

Chosen from a selected list of outstanding students to represent IIT at the International Design Conference in Aspen, Colorado, were Anthony Tritsis, 25, of Athens, Greece, a graduate student in City Planning, David J. Bielenberg, 24, of 51 Yorkshire Woods, Elmhurst, and Duane D. Anderson, 23, of 60 E. 32 St., Chicago. Both Bielenberg and Anderson are fifth year students in Architecture. The award, which consists of 500 dollar checks for the students to cover expenses en route and while attending the Conference, was presented by Prof. George E. Danforth, director of IIT's Architecture department. The Conference is slated for the week of June 24-30.

Word of their selection was given by John D. Entenza, director of the Graham Foundation, who said that three students from each of five schools were selected for the honor. Other schools which nominated students for the award were Yale, Pennsylvania, University of Minnisota, and the University of Illinois. Students were nominated by a committee, consisting of deans and faculty of the schools and departments of Architecture, he said.

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35 WEST 33RD STREET TECHNOLOGY CENTER CHICAGO 16, ILLINOIS

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Armour Research Foundation
of Illinois Institute of Technology
Institute of Gas Technology

For further information on this release, contact:

James Stathas
Calumet 5-9600, Ext. 2747

R RELEASE: IMMEDIATE

June 1, 1962

Dr. Henry Knepler has been named chairman of the language, literature and philosophy department of Illinois Institute of Technology, it was announced by Dr. John T. Rettaliata, president.

Knepler has been acting chairman of the department for the past year.

Knepler joined the IIT faculty in 1947 as an instructor of English after serving one year as an instructor at Queen's University, Kingston, Canada, where he also received his B.A. and M.A. degrees. He received his Ph.D from the University of Chicago in 1950.

He is the author of a book and a number of published articles covering the areas of drama and literature. He is a member of the National Council of Teachers of English, American Society for Engineering Education, International Federation of Modern Languages and Literatures, and the Modern Language Association of America.

Knepler resides at 5335 S. Dorchester.

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M. T. Noar
Calumet 5-9600, Ext 2745

OR RELEASE:
12 Noon EDT
Tuesday, June 5, 1962

ATLANTIC CITY, N.J., June 5 -- Increased emphasis upon Space Age science and technology in our colleges and universities is creating a critical shortage of engineers for the nation's vital power industries, the 30th Annual Convention of the Edison Electric Institute was told here today.

Dr. John T. Rettaliata, president of the Illinois Institute of Technology, cited the phenomonal growth of electronics as an engineering specialty in contrast to reductions in power engineering courses in many of the nation's leading educational institutions.

Pointing out the significance of the power industry as a prime measure of a nation's strength and prosperity, he said that a seeming lack of glamour in power was a severe disadvantage to electric utilities in the critical competition for engineering manpower.

U. S. power industries, in recent years, have succeeded in securing only about 85 per cent of the required technical manpower, according to Rettaliata. He went on to predict that with the current decline in undergraduate engineering college enrollments the percentage will be even lower this year, and that the situation will not improve for some years to come.

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Citing the significance of the power industry to the economic well being of the U. S., Rettaliata said that the struggle among nations for more and cheaper power is basic in industrial competition and in the contest between the free and Communist worlds.

Defining power as wealth itself, Rettaliata referred to a 1958 United Nations study which showed a definite correlation between power production and the per capita income of a nation.

Reducing power to "coal equivalents," the study showed the U. S. on top with a per capita income of $2094 and a "coal equivalent" of eight metric tons. By comparison, Great Britain had corresponding figures of $983 and 4.75 tons; West Germany, $770 and 3.45 tons; and India with $67 annual per capita income to go along with only 0.40 metric tons of power produced.

Pointing out the importance of power to other nations of the world, Rettaliata said that many of America's leading universities today have more foreign students studying for advanced degrees in power systems than from our own 50 states. And if the U. S. is to retain leadership of world technology, he went on, then our future must be linked with power, for it is by doing things better and at less cost in every area of industry that we can meet the severe competition of the growing world common market.

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To keep America ahead in the power race, the electric utilities must constantly replenish their supply of creative brainpower and conscientiously study the development of new power sources such as nuclear energy, solar energy, and fuel cells.

To accomplish these objectives, Rettaliata called upon the management of power companies to establish rapport and lines of communication with leading technical colleges and universities.

Educational institutions will play an increasingly important role in the future growth of the nation's power industry, he pointed out, for in addition to providing new manpower and the opportunity for advanced studies by engineers already in the power industry, they also represent the stronghold of research necessary to pursue the development of new sources for power.

Such a close relationship has paid handsome dividends for many of the other industries who are competing for engineering graduates, according to Rettaliata. As examples he cited those in the electronics field and associated space sciences who have taken an active part in the planning of college curricula and have delegated basic research responsibilities to the universities and their affiliated laboratories.

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It is then a natural course of events, he went on, for engineers who have become familiar with the unique problems and operations of electronics and other space sciences, to enter these fields upon graduation.

It is through this university-industry relationship that potential engineers and scientists can be made aware of the vast challenges and opportunities offered by America's power industries, he added.

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OR RELEASE: IMMEDIATE

June 5, 1962

CHICAGO -- Chicken pox almost dealt the final blow in a nine-year struggle to obtain a bachelor's degree by Richard Moll.

Moll, 26, a metals assistant experimentalist at Armour Research Foundation, received a telephone message from his wife informing him that one of their five children had acquired chicken pox while Moll had been away on a trip.

Knowing that his final examinations at Illinois Institute of Technology were coming up, which meant he would at last receive his sheepskin, Moll refused to go home and jeopardize his chances of taking finals by being quarantined. Moll called his mother to find out whether he had had the disease as a child--she couldn't remember, but told him to go home. Moll wouldn't budge from his lab even after hours of urging by both his wife and mother. Moll finally went home at midnight--he still doesn't have the disease and it doesn't look like he's going to get it.

Moll began his college career without much success at the University of Illinois Navy Pier in 1953. Although he graduated from Chicago's Tuley high school with above average grades, he left college after three semesters because he realized, through his own disinterest, that he was wasting his time.

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One of his professors advised him to get a taste of engineering and then decide whether he wanted to return to school. He now feels that the environment at ARF made him "see the light." He said, "Merely talking to scientists and engineers, not only shop talk but of any conversational topics influenced me very much."

Moll has been attending Illinois Tech's evening school since 1955, and will graduate with a B average. After he graduates, Moll will take a job in which he will receive less pay than he receives now at Armour. He has received both teaching and research assistantships at Lehigh University in Bethlehem, Pa. Ordinarily, only one of the assistantships are awarded to an individual. Moll's income will be supplemented by a $1,000 National Defense Act loan. At the same time, he will be working toward masters and doctorate degrees. He hopes someday to teach.

His family, wife Patricia and five children, including a set of twins born during final examinations last year, will move into a six bedroom home near Lehigh. They now reside on the Illinois Tech campus.

Illinois Tech commencement exercises will take place Friday, June 8, at Orchestra Hall, beginning at 8:15 p.m. Dr. Alan T. Waterman, director of the National Science Foundation, will be commencement speaker and will receive an honorary doctory of laws degree. Approximately 430 IIT students will receive degrees.

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R RELEASE: IMMEDIATE

June 7, 1962

CHICAGO, ILL. -- Obtaining new information on the properties of helium, an element vital to national defense and found only in the United States and the Soviet Union, is the objective of a National Science Foundation research award recently granted to the Institute of Gas Technology of the Illinois Institute of Technology, it was announced today.

The purpose of the research project is to gather information about the amount of helium dissolved in liquid methane, nitrogen and natural gas under various conditions. IGT associate director Dr. Rex T. Ellington and co-investigators will spend 18 months on the project.

Once an obscure gas used primarily to inflate blimps and weather ballons, helium has a number of properties which today make it invaluable for use in guided missiles, atomic energy, arc welding, meteorology and for other purposes. It is lighter than air, non-combustible, will not react chemically with other substances and can be cooled to temperatures very near obsolute zero. It is also non-poisonous and a very good conductor of sound and heat.

-more-

ADD 1 --

Compressed helium is used to maintain pressure in the fuel tanks of guided missiles as the fuel is burned. This means that a lighter metal skin can be used on the missile, increasing its range.

In atomic reactors helium is circulated as a coolant and is used as a leak detector.

Industry uses helium as a "gas shield" to reduce oxidation during arc welding. It is also used in cryogenics, the study of the behavior of materials at extremely low temperatures. A "cryotron" for example, a device about as thick as a human hair, can do about the same job as a transistor or vacuum tube when bathed in liquid helium.

Helium occurs in certain types of natural gas found in the south-western United States. At present, about 600 million cubic feet of helium a year is being extracted from natural gas by U. S. Government-owned plants; but about 4 billion cubic feet each year is wasted to the atmosphere in gas used as industrial and domestic fuel.

To rectify this situation, Congress recently passed a bill authorizing the Department of the Interior to purchase helium from private sources. The government purchase contracts are being used by industry to finance new helium extraction plants which will strip helium from natural gas before the gas is marketed. The helium will be sent to a government storage area near Amarillo, Tex.

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OR RELEASE: IMMEDIATE

June 8, 1962

CHICAGO -- Six new civil defense research contracts totalling $685,000 have been awarded to the Armour Research Foundation of Illinois Institute of Technology by the Office of Civil Defense of the Department of Defense, it was announced today.

The new projects will make the Foundation one of the largest contractors conducting OCD research in the current effort to speed up and improve the nation's civil defense capabilities, according to Dr. Eugene Sevin, manager of the ARF Civil Defense Research Center, who will have over-all supervision of the projects.

In a laboratory study of shelter environment, ARF investigators will construct full-scale shelters, surround them with various types of soil, and subject them to various degrees of heat and cold representing summer and winter weather. The occupants of the shelters during the experiments may be either live or simulated.

Another investigation will be an analytical study of types of fragments scattered as debris over a city area after a nuclear attack. The purpose of this study is to permit the planning of the reactivation of vital areas and facilities in terms of the man-hours required to clear different types of debris under various rates of radiation resulting from fall-out.

-more-

A third project involves the study of materials and methods of construction to be used in building shelters in relation to cost and availability in both wartime and peacetime economies.

Still another project is a study of "fire storms," which are huge, funnel-shaped fires burning off the ground as a result of the converging of many separate fires started simultaneously by a nuclear or incendiary attack on a city. The purpose of the research project is to determine how ground temperature, lack of oxygen and other effects of a fire storm will affect shelter design.

A fifth project, aimed at the prevention of fire storms after an attack, concerns the rapid extinguishment of separate fires before they can coalesce.

Finally, a handbook will be prepared for use by people responsible for the preparation of manuals for local shelter planners and builders. It will cover the mechanical (as opposed to psychological) aspects of the construction and maintenance of shelters both in peacetime and during and after attack. One problem in this area, for example, would be the preparation of instructions which would allow people with little or no mechanical training to keep a shelter operating during the period of danger following an attack.

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R RELEASE: 12 Noon Wednesday
June 13, 1962

RECEIVES HONORARY DOCTORATE

CLEVELAND, OHIO, June 13 -- Prof. Ludwig K. Hilberseimer, city and regional planning expert at Illinois Institute of Technology, received an Honorary Doctor of Laws degree at Western Reserve University here today.

For his world-wide contributions to city and regional planning, the 76-year-old planner, educator and author was awarded the degree by President John S. Millis, at Western Reserve commencement exercises.

A native of Karlsruhe, Germany, Hilberseimer was a student at the Karlsruhe Institute of Technology, majoring in Architecture. From 1928 to 1933 he founded and headed the department of city planning at the Bauhaus, famed pre-war German school of design. It was there that he became a colleague of Ludwig Mies van der Rohe, and moved with him to this country in 1938. Here, he became a professor and director of the Department of City and Regional Planning at Illinois Institute of Technology.

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He is the author of several books, among them, *The New City*, *The New Regional Pattern*, and *Mies van der Rohe*. In another book, *The Nature of Cities*, published in 1956, Hilberseimer outlined a replanned Chicago extending as far as the Fox River in Chicago's western suburbs. Under his plan, the citizenry would be protected from such current problems as aerial attack, slums, traffic hazards, air pollution, parking problems and wild suburbanization.

In 1958, Hilberseimer received a citation for excellence in teaching from the Association of Collegiate Schools of Architecture at its 44th annual convention.

He is a member of many national and local planning organizations, notably, the American Institute of Architects, Planning Committee of Chicago's South Side Planning Board, Advisory Committee of the Burnham Library, and the Committee on Civilian Defense (Chicago Chapter AIA).

Hilberseimer resides at 1510 N. Dearborn Street, in Chicago.

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R RELEASE:

IMMEDIATE

June 13, 1962

CHICAGO -- Twelve Chicago-area high school chemistry teachers recently completed a unique in-service course in the theory and use of modern chemical instruments at the Illinois Institute of Technology.

This course is one of a series of courses at IIT sponsored by the National Science Foundation and aimed at raising the level of high school teaching of science and mathematics. In the chemical instrument course, the teacher - students met each Saturday during the Spring semester for two hours of lectures and three hours of laboratory work under the direction of Dr. Rubin Battino, assistant professor of chemistry at IIT.

During the semester, each teacher constructed instruments such as spectroscopes and electrical test meters, which he took back to his high school at the completion of the course. Teachers participating included: Brother Lawrence Jude Mooney, Brother Rice High School, Chicago; Sister Marie Berge Demirgian, O.P. and Sister Roberta Marie Haven of Regina Dominican H. S., Wilmette; Miss Joan Dunn, Tilden Technical H. S., Chicago; Frank Maes, Lane Technical H. S., Chicago; John Davison, Oak Park and River Forest H. S.; Lewis E. Nowlan,

-more-

Oak Lawn Community H. S.; Jerry Reed, Crete Monee H. S., Crete, Ill.; Herbert Rosing, Bowen H. S., Chicago; Carl D. Tchalo, Thornton Fractional North H. S., Calumet City, Ill.; Sister M. Cyriaka Woida, O.S.F., Madonna H. S., Aurora, Ill.; and Raymond Zmaczynski, Lane Technical H. S., Chicago.

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)R RELEASE: IMMEDIATE

June 19, 1962

CHICAGO, ILL. -- The 1962 National Convention of the Society of Women Engineers will be held at Illinois Institute of Technology on June 21, 22, 23, and 24.

Main speakers at the convention will be:

Saturday, June 23, 10 a.m.--"Meaning of Space to Citizen and Engineer," John V. Sigford, director of Advance Planning, Military Products Group, Minneapolis-Honeywell Regulator Co.

11 a.m.--"Engineer's Role in the Hospital," Dr. Duncan A. Holaday, professor of surgery, University of Chicago Hospitals.

2:15 p.m.--"Engineer's Role in Urban Renewal," John Duba, Commissioner, Dept. of Urban Renewal, City of Chicago.

3:15 p.m.--"Age of Space," Dr. Daniel Q. Posin, professor of physics, DePaul University.

The four-day program also includes a tour of the Goss Co., manufacturer of printing presses; a dinner and cruise at the Chicago Yacht Club; and a Saturday night banquet during which the Honorable James B. Parsons, Judge, United States District Court, will present a talk.

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R RELEASE: Tuesday, June 19, 1962
After 2:00 p.m.

BOSTON, JUNE 19 -- Development of a highly sensitive, completely utomated and more economical device to measure the amount of toxic eryllium dust in the air was announced today by a Chicago scientist n a talk presented at the Summer Meeting of the American Nuclear ociety, being held in Boston June 18-21.

Beryllium intake is poisonous to human beings and can cause eath when sufficient internal exposure to the metal or its compounds akes place.

According to Dr. James W. Haffner, physicist with the Armour esearch Foundation of Illinois Institute of Technology, the beryllium onitoring device uses a small radio-active built-in source to etect the minute amounts of the material in the air. He estimated hat a commercial model would cost approximately $7,000. Other utomated devices with somewhat less efficiency than the ARF detector ell for approximately $20,000.

Beryllium poisoning (Berylliosis) has been a plague to the iners of the metal and to workers in plants that produce nuclear eactor parts. The metal is also being put to continually greater se today in industry and the military because of its high chemical

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CHICAGO - Conrad E. Locander
Calumet 5-9600, Ext 2746

WASHINGTON - Col. Ralph Slater
Oxford 6-3736

June 20, 1962

CHICAGO, ILL. -- Nearly one hundred leading rocket research contractors will meet here June 26-27 to discuss problems in research on liquid rocket propellants. The site of the meeting will be the Armour Research Foundation of Illinois Institute of Technology, where the 15th Air Force Office of Scientific Research Contractors Meeting on Liquid Rocket Combustion Research will be held.

In making the announcement, Dr. T. Paul Torda, director of fluid dynamics and propulsion research at the Foundation, indicated that the meeting will report on latest results and problems in research on liquid rocket propellants designed to get man into space.

"Much is needed in this area to establish workable procedures and to replace the expensive 'cut-and-tried' methods used in rocket development today," Torda said. He added that during the meeting, contractors will report on work in progress on liquid propellant rocket combustion.

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ADD 1 -- AFOSR Meeting

Torda added that he is hopeful the AFOSR meeting may uncover some information which could be used by all agencies working on liquid rockets. He said that although reasonable reliabilities have been achieved in operational liquid propellant rockets, this has been accomplished mainly by experimental engineering, rather than by gaining scientific understanding of the nature of combustion.

"It is hoped that a cross-fertilization of ideas between contractors working on various projects will be the outcome of this meeting," said Torda.

The latest results and problems in research on rocket fuels and systems will be the subject of twelve papers to be presented to representatives of the Air Force, Navy, Army and NASA.

Experts from Massachusetts Institute of Technology, Princeton University, NASA, the Arthur D. Little Company, Purdue University, the Aerojet-General Corporation, Dynamic Sciences Corporation, and the Armour Research Foundation will discuss current problems and developments in liquid propellant combustion research.

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OR RELEASE: IMMEDIATE

June 20, 1962

CHICAGO, ILL. -- What happens when a nuclear reactor runs wild will be a "big lesson" for engineering students at Illinois Institute of Technology next fall.

Through the award of an Atomic Energy Commission grant for $24,541, equipment is being purchased by IIT to simulate conditions which AEC safety rules would prohibit on a real reactor. The funds will be used to buy an analog computer to augment the IIT program in nuclear engineering.

"Because the computer can simulate the running of a reactor to the critical point of 'melt down' without danger to students, it will provide an ideal means for study and active participation," according to Dr. Bernet S. Swanson, IIT professor of chemical engineering. "Melt down" was defined by Swanson as the point at which a reactor begins to disintegrate, allowing atomic substances to escape into the surrounding area.

"By studying the behavior of nuclear reactors under situations such as these, the students will become more fully prepared to take their place in the onrushing nuclear age, said Swanson, who explained how the equipment would be used to simulate a reactor:

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"The voltage exiting from a point in the analog computer can be correlated with the neutron level in a real reactor. By observing the level of this voltage, we can get an indication of what the neutron level in a reactor would be under the real situation."

Because nuclear reactors are becoming an increasingly important part of an engineering education, the option in nuclear engineering was instituted at IIT five years ago. Today, courses in chemical separation of fissionable materials from ore, reprocessing of used fuel elements, reactor design, reactor analysis, industrial applications for radioisotopes, and fabrication of nuclear fuel elements, are some of the courses offered to students taking the option.

Citing the importance of such studies, Swanson said, the reduction in natural fuel materials makes it necessary for us to explore new energy sources.

"Nearly all engineers graduating today will be in contact with nuclear energy at some time during their lives, and in order that they can play their full roles in the development of this energy, it is of vital importance that we train them in college, he continued.

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"As our fossil fuel sources diminish, nuclear power will become increasingly more important, and it will clearly be to our advantage to have capable engineers around who have been pre-trained to bring this power to whoever needs it at the proper time," he said.

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R RELEASE:
Wednesday, June 20, 1962
After 2:30 p.m.

BOSTON, JUNE 20 -- The weight of substances carried through iping by liquids can now be measured more efficiently, and without impeding the flow, because of a device recently developed by the rmour Research Foundation of Illinois Institute of Technology, hicago.

Dr. James W. Haffner, ARF physicist, made the announcement in presentation today before the Summer Meeting of the American uclear Society being held here June 18-21.

He stated that for years scientists have been attempting to evise an instrument which would be able to handle any type of fluid arrying any material, would be independent of external environment, nd would not interfere with the flow rate.

The system he developed in collaboration with William H. Genthe f the Badger Meter Mfg. Co., Milwaukee, measures the flow of aterials through a pipe using radioactive isotopes which are utside the pipe. Former mass flow systems used such things as ropellers directly in contact with the liquid, thereby interfering ith the normal flow pattern. Also, because of sediment accumulation nd freezing, the propellers would very often stop functioning.

-more-

ADD 1 --

Examples of materials to be measured by the meter are coal and ice being transported by water through pipes. Varying densities of liquids to be measured have also posed problems for other mass flow meters; the ARF flow meter, for example, can accurately measure multi-phase fluids such as chemicals which have varying densities according to temperature and pressure.

The gauge has already been tested on milk, water and other chemicals, and will probably find other industrial uses.

The research was sponsored by the Atomic Energy Commission.

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OR RELEASE:

Thursday
June 21, 1962

CHICAGO, June 21 -- A device developed by the Armour Research Foundation of Illinois Institute of Technology to inspect the interiors of assembled nuclear weapons is finding new applications along more peaceful lines -- in the field of medicine.

The device, a flexible fiber optic probe, was originally developed for the Livermore Laboratory of Sandia Corporation, a prime contractor to the Atomic Energy Commission. It now shows promise as a safer device for inspecting internal human organs, thus permitting more accurate diagnosis of internal ailments.

This is one of the first such flexible probes developed which emits no heat, and therefore does not constitute a danger to delicate tissues; it is also the first which transmits a glareless image. ARF scientists solved the heat and glare problems by building the light source into the device's pistol-grip handle rather than at its tip.

The probe, composed of approximately 6,000 glass fibers, has an insertion length of 36 inches and an outer diameter of less than 0.380 inches. However, according to the probe's principal developer, ARF physicist Donald A. Pontarelli, probes can be constructed to much longer lengths.

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Because of the absence of heat, the probe will also be a valuable tool for "seeing" in areas where heat may be dangerous, such as where explosive vapors are present or when disarming unexploded bombs.

Although use of such probes will now be limited to industrial, medical and military applications, Pontarelli said that such probes in the future would be of direct benefit to the general consumer. For example, automobile mechanics would save time in diagnosing engine troubles by snaking the probe through the sparkplug hole to view internal parts, such as worn cylinders, without tearing the engine down.

Shorter range uses will probably be: Isolating aircraft turbine problems by winding the probe through the blades; keeping track of corrosion of fuel plates in nuclear power plants without radiation danger to the technician; corrosion effects in all types of tubing; and inspection of bore surfaces in gun barrels.

A primary attribute of the device is its capability to transmit images without degradation in spite of limitless bending. The probe is constructed on the principle that "if light is directed into one end of a glass fiber, it will emerge at the other end with relatively little attenuation--arranged bundles of such fibers can be used to conduct images over a twisting and turning path." Thus scientists are now able to "see around dark corners."

-more-

ADD 2 --

The viewing image appears in a mosaic pattern, almost like that on a TV screen, due to the arrangement of the glass fibers in the protective sheath. Each of the glass fibers is .002 in diameter. Higher resolution is attainable through the use of multiple fibers containing ten-micron cores. Each fiber is coated with a glass shielding of a higher refractive index to prevent dissipation of light.

The probe works like this: The outer fibers in the bundle transmit light to the object being viewed. The fibers in the core of the probe, in turn, transmit an image of the lighted object to the viewer. Lenses at either end of the probe can be changed to increase or decrease the depth of field, magnification, and viewing angle.

Through the use of small light bulbs powered by a standard radio battery, an illumination of 20 foot candles are produced at 1.5 inches from the probe tip. Higher illumination can be attained through the use of other equipment.

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OR RELEASE: IMMEDIATE

June 22, 1962

MAY DUSTFALL SHOWS DECLINE

CHICAGO, ILL. -- Chicago dustfall dropped for the fourth month in a row, according to records at Armour Research Foundation of Illinois Institute of Technology.

Averaging 39.1 tons per square mile over the city for the month of May, a favorable decline from Aprils' 51.4 ton average was registered. Measurements of 40.8 tons per square mile were recorded in May of last year.

The lowest readings for the month were taken at 1620 W. 99th St. (15.8 tons per square mile), and 7350 Pratt Ave. (21.7 tons per square mile), according to Samuel Radner, Foundation specialist in air pollution and fine particle control. Radner indicated that three other stations had readings in the low 20's, They are 7559 Eggleston (23.4 tons), 5602 Belden (23.5 tons), and 1362 E. 69th St. (23.8 tons).

Highest readings for the month were taken at 54 W. Hubbard St. (86.2 tons); and in the Loop at State and Adams (74.9 tons), and La Salle and Washington (74.1 tons), Radner said.

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ADD 1 -- May Dustfall

CHICAGO TOTAL DUSTFALL
Trends by Station
May, 1962
Tons Per Square Mile Per Month

Sta. No.	Station Address	Readings in May, 1962	April 1962	May 1961
1	State & Adams	74.9	61.3	70.0
2	33 N. La Salle	74.1	75.6	69.5
Loop Average		74.5	68.5	69.7
3	2135 S. Michigan	31.6	42.6	48.8
4	825 E. 44th	-	70.1	33.8
5	1362 E. 59th	23.8	32.7	25.8
6	7351 Stony Island	51.1	66.8	81.1
7	67 W. 113th Place	32.2	30.9	36.6
8	8858 Marquette	66.8	243.7	66.7
9	3105 W. 63rd	32.3	43.2	55.4
10	6140 S. Melvina	36.3	42.7	40.1
11	7559 Eggleston	23.4	26.6	31.7
12	1620 W. 99th	15.8	20.2	19.1
13	3608 Ogden	47.4	44.8	29.2
14	1500 W. Monroe	39.3	43.3	44.8
15	5055 Fulton	39.4	40.2	38.1
16	2940 W. Cortland	39.1	40.0	43.3
17	5602 Belden	23.5	24.6	26.7
18	2944 N. Sawyer	31.1	41.0	26.9
19	7350 Pratt	21.7	23.0	23.1
20	54 W. Hubbard	86.2	58.8	55.1
21	551 Grant Place	37.4	38.8	40.0
22	3552 Sheffield	42.7	62.1	36.8
23	1622 Pratt Blvd.	27.6	32.2	23.3
25	2240 W. 37th	37.2	45.5	41.7
Avg. (Incl. Loop Avg.)		39.1	51.4	40.8

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For further information on this release, contact:

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June 25, 1962

CHICAGO -- New applications for electronic computers in business, management, engineering and science will be discussed at the 1962 Computer Applications Symposium, sponsored by Armour Research Foundation of the Illinois Institute of Technology, to be held on Oct. 24 and 25 at the Morrison Hotel in Chicago.

ARF mathematician Robert S. Hollitch will be program chairman for the 1962 symposium, the ninth annual meeting of its type. The first day of the symposium will be devoted to the latest computer applications in business and management, the second to applications in engineering and science. Cyberneticists and others concerned with the use of computers are expected to attend from all over the United States.

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June 28, 1962

CHICAGO -- A Shell Design Seminar, which will present to practicing architects and engineers some of the latest techniques of design and construction of thin shell structures in reinforced concrete will be held June 28 and 29, 1962 in Hermann Union Building of the Illinois Institute of Technology.

Noted representatives from consulting engineering, education, and research will speak on topics of interest to the practitioner during the seminar, which is jointly sponsored by IIT and the Portland Cement Association. Among the speakers will be Dr. Sidney A. Guralnick, associate professor of civil engineering at IIT; Dr. Eivind Hognestad, manager of the structural development division at PCA; Mr. Walter E. Kunze,manager of PCA's structural bureau; Dr. James M. Paulson, professor of civil engineering at Wayne State University; and Dr. Howard Simpson, of Simpson, Gumpertz and Hager, Inc., Boston consulting engineers.

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FOR RELEASE:

IMMEDIATE

June 28, 1962

CHICAGO, ILL. -- Millions of outboard boating enthusiasts will soon be better able to judge the safe horsepower limits for their boats as the result of a research contract awarded recently to Armour Research Foundation of the Illinois Institute of Technology by the Outboard Industry Associations.

Armour engineers have laid out a test course with buoys in the Little Calumet River at Blue Island, Ill., and are testing outboard motors of various horsepower capacities mounted on a fleet of boats ranging from 12 to 16 feet in length. The boats vary in hull design as well as in size, and hulls made of wood, aluminum and fiberglass are included in the testing program.

Using as much as 150 horsepower (twin 75 h.p. motors), the test drivers put the boats through tight turns to test their stability at different speeds. Instruments mounted in the boats record the centrifugal force exerted on the boat's occupants when making a turn. A lateral force of approximately one third the force of gravity is considered the upper limit of

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safety, since above this limit individuals in the boat may be in danger of falling overboard. Considerably more force, however, would be required before there would be any danger of the boat itself capsizing.

Stability on turns is only one of many significant factors affecting safe horsepower limits for a given model of boat. When the Armour investigators have finished compiling data through the tests, which will continue for approximately two months, the results will be fed into a computer. From the results, the engineers will develop a formula permitting scientific designation of the horsepower limits appropriate to a particular hull design.

One of the major objectives of the Outboard Industry Associations in sponsoring this research program is to provide scientific standards to which legislatures can refer when considering laws affecting horsepower limits in outboard boats. Such laws at present are largely arbitrary.

The Armour Research project engineer in charge of the testing program ,Walter H. Villiers, is conducting the tests out of the Eubank Marina on the Little Calumet River south of Chicago.

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OR RELEASE: [redacted] TUESDAY, JULY 3, 1962

IIT LAUNCHES STUDY OF "EXECUTIVE'S DISEASE"

CHICAGO, ILL., July 3 -- A deeper probe into the cause of ulcers is being launched this week at the Illinois Institute of Technology under a grant from the National Institutes of Health.

Researchers at the school are working to isolate one of the variables of frustration known as "expectancy failure" to determine its effect on the formation of ulcers.

According to Dr. Marion H. Groves, associate dean of the IIT graduate school and associate professor of psychology, "expectancy failure" is one form of frustration in which expectations are thwarted. Groves has been named principal investigator on the project.

Pointing out the significance of the "expectancy failure" phenomenon, Groves cited the example of top-flight administrators who may be characterized as maintaining a high expectancy level in their many daily contacts. But, reality being what it is, they experience disappointment or "expectancy failure" in the outcome of a considerable number of these contacts.

"Under such conditions, certain physiological changes occur, one of which is the overproduction of stomach acid, which can lead to ulcers when continued over long periods of time," he said.

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"It seems to be the occupational hazard of the executive," he said, and he named the malady "executive's disease" because a large percentage of patients with ulcers tend to come from the supervisory and executive levels.

"Frustrations associated with these occupations seem to be most conducive to ulcer formation," he pointed out, adding that it is in this area of frustration that the study will concentrate. Other possible causes of ulcers, such as starvation or undernourishment for extended periods of time will not be included in the study, according to Groves.

For the next six months, a number of rats will be observed at IIT under carefully controlled laboratory conditions. They will be divided into two groups, an experimental group and a control group. While both groups will be subjected to physical stress, only the experimental group will be exposed to "expectancy failure."

However, before this happens, the experimental group will be "preconditioned," or taught to press a lever in order to stop the discomfort of an electrical shock. In this phase, every time the rate presses the lever, the shock will cease. This training will continue until the physical act of pressing the lever to alleviate the shock becomes a habit with the experimental group.

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In the second phase of the experiment, one important change will be made for members of the experimental group in that they will experience varying amounts of success in turning off the shock. Sometimes, when they press the lever, the shock will cease, and at other times it will not. Testing equipment has been rigged so that some members of the experimental group experience 75 per cent, some 50 per cent and others 25 per cent "expectancy failure."

Members of the control group, because they have not been preconditioned, will not experience "expectancy failure," while members of the experimental group, since their goals are being thwarted, will. By this method, Groves feels they will be able to determine whether ulcer formation in these animals is the result of expectancy failure, physiological stress, or a combination of both.

"We suspect that the psychological factor contributes more to the development of ulcers than any physiological stimulus," said Groves, adding that the final results should indicate which is the greater contributor.

Although there can be no direct correlation between the responses of animals and those of human beings, Groves said the study can be of value as a source of hypotheses for projection on the human situation."

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ADD 3 -- Executive's Disease

During similar experiments in the past, larger numbers of variables were explored, but they were not isolated for individual study, according to Groves.

"Ulcers that developed in past experiments were clearly the results of both psychological and physiological stress combined, but the results might have been different had the variables been isolated for independent study," he said. Groves hopes that the IIT study will enable scientists to attack many of the variables that contribute to ulcer formation in the future.

"We all know that some executives react differently than others who are exposed to the same external situations. One group may develop ulcers while the second group does not. Our objective will be to try and pinpoint the reasons why this is true, and to see if we can find some kind of immunization process that can be used to fortify man against an attack of ulcers," he said.

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